



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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CADMUS

NEW PERSPECTIVES ON MAJOR GLOBAL ISSUES

Volume 3, Issue 6

May 2019

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 urgently need 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 6, May 2019

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Inside this Issue

The articles in this issue of *Cadmus* address some of the most pressing opportunities and challenges posed to humanity in the 21st century. Inspired by historical insights, they examine the process of social evolution and the successful and unsuccessful responses that have been the source of earlier crises and the impetus for the great advances of the 20th century. The human mind has a forward-looking orientation which tends to diminish the achievements of the past while magnifying present challenges and future aspirations. We no longer regard with awe the remarkable events that led to the sudden end of the Cold War, the collapse of totalitarian regimes, the democratic revolution that spread like wildfire through Eastern Europe and elsewhere, the arms control agreements that ended the nuclear arms race, the dramatic reunification of Germany, the founding and rapid expansion of the EU, the World Wide Web and other unforeseen occurrences that transformed the world during the last quarter of the 1900s. The prevailing cynicism, doubts and insecurity generated by recent events obscure both the lessons of the past and possibilities of the future. These lessons do not mitigate the magnitude of present challenges, but they do offer guidance on how to evolve effective strategies to address them.

Nor is it sufficient that we broadcast loudly the impending existential threats that loom before us. If it were, surely incessant warnings of the past would be sufficient to compel humanity to act. The most intense warnings will be ignored unless they are accompanied by a positive vision and path to a better future. Although the wealthy may be content to preserve what now exists against these threats, the vast proportion of humanity ardently dreams of a better future and will only respond to a positive message that reveals how they can achieve it. This fact poses a challenge to the intellectuals of the world to develop ideas, formulate strategies and impart the knowledge needed to convert today's challenges into tomorrow's opportunities.

Our progress depends on the constant evolution of our methods and organizations. Democracy needs to be freed from the incubus of plutocracy, careerism, falsehood and corruption. It must be recast to fulfill its original purpose of promoting inclusion and universal human rights. Economic systems must be radically transformed to stem growing concentration of wealth and inequality, the mindless exhaustion of scarce resources and pollution that impoverishes the future. Education must shift from transmitting information to passive recipients to actively developing the capacity for independent thinking, problem-solving, creativity and developing the whole person. Bold and original thinking that ventures beyond all known frontiers of knowledge is required. Transformational world leadership based on positive values is needed to reconcile the inherent contradictions arising from short-sightedness, narrow self-interest and dominant centers of social power. These very challenges can serve as propellants for greater progress and well-being.

We hope you enjoy this issue.

Editors

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We stand at the beginning of a new age of discovery and opportunity. Or we stand at the start of an age of chaos and social disruption. To make the right choice we need a fair dose of humility and wisdom to remember that all our scientific work is a product of human consciousness, not something that does away with the need for human consciousness.

William Byers, What is Reason?

All acts of leadership mature only when the ideas, values, goals, aspirations and intentions of the leader awaken and release the energy and inspiration of other individuals, acquire the power for implementation. The adoption of the 17 SDGs by the entire world community is a rare and remarkable instance of mental, political and social leadership at the global level unprecedented in its scope, depth and significance to the future of humanity.

Garry Jacobs, Donato Kiniger-Passigli & David Chikvaizde
Global Leadership in the 21st Century

The need of the hour is for evolution of humanity beyond the nation-state and the gradual emergence of effective institutions for global governance founded on an awakened sense of the psychological unity of all human beings.

Ashok Natarajan, Ideas that Changed the World

Social evolution is the evolution of social consciousness.

Dimitar Tchurovsky

Mankind at the Crossroads: Civilizational Shift or Self-destruction

New economics will arrive and endure only with wider cooperation among dissident economists, and an effective strategy to promote the value of nature's services, calculating costs of pollution, alternative measures to GNP, the role of social capital, and costs and benefits of plausible climate policies.

Michael Marien and David Harries
Ten Essential Ideas for Sustainability Leaders in the 2020s

To achieve harmony, democracy also requires rationality and organizational methodology from citizens and politicians. Education and training are fundamentally what sustains them on a daily basis.

Philippe Destatte
Some "New" governance models for Europe and the United States

We do not need to 'patch up' a globalist model of governance, nor accept the unchallenged dominant trope of liberal democracy versus dictatorship, but to rethink with fresh ideas as to how we can bring about a new paradigm in governance.

Fadwa El Guindi
Toward a New Paradigm of World Governance

BACK COVER QUOTES

Extensive system changes are needed in all major areas of society. In the shorter-term, SCI probably is the most effective way to drive the systemic changes needed to achieve the SDGs and maximize the long-term well-being of humanity.

Frank Dixon

System Change Investing and the Sustainable Development Goals

In future, humanitarian, development and peacebuilding activities will have to be more “risk informed” and sustainable. This will require a fundamental change from planning and programming “risk-insensitive” political priorities towards establishing a world-wide practice of long-term strategic planning integrated with sound crisis risk analysis and vulnerability assessments.

Donato Kiniger-Passigli

Fragile Contexts and People-Centred Preventive Actions

From an economic perspective, there should be a far-reaching shift from the outdated Bretton Woods Agreement to creating a “new global social contract” which, if given the highest priority, will effectively contribute to the development of a more democratic global governance model.

Erich Hoedl

Contribution of the Economy to Emerging Global Governance

We need to elevate the teaching profession, work on developing the political and cultural environment required for educating the next generation responsibly, in a way that would hopefully foster a more equitable world, not just a technologically more enhanced one.

Carlos Blanco-Pérez, Alexandre Pérez-Casares and Ramón Rodríguez-Riesco
Educating for the Future: Empowering the Human Mind and Redefining Values and Citizenship in the Age of Technological Disruption

We already possess all the technological tools, innovative social strategies and human knowhow to achieve more equitable, sustainable global societies. What we need now are willpower, democratic political leadership and widespread participatory vision.

Hazel Henderson, The Politics of Connectivity

No one has a right to unlimited self-determination, or to the unlimited exercise of power. All states, institutions, bodies and actors are in one way or another accountable to others.

Jo Leinen and Andreas Bummel

The Need for a Global Government: Democracy in the Planetary Age

Global crises raise challenges that cannot be resolved by any single country. Societies are interconnected and cannot act in isolation. It is the responsibility of every one of us to bind the

community of humanity together, to build a common space that excludes no one, regardless of continent, origin, age or gender.

Elif Çepni

**Who should Govern and on what principles? The Future of Decision Making:
Combining Nudge with Scenarios to Reach Eutopia**

In the real world there are no perfect institutional conditions, where self-regulating mechanisms would work without mistakes, continuously harmonizing the interests of social and economic agents.

Ruslan Grinberg and Alexander Rubinstein

Towards a New Economic Theory of the State

Our conception of power externality considers the interconnections between economics and the entire system of social power relations and governance structures.

Danielle Sandi Pinheiro

**Power and Climate Change Governance: Negative Power Externality
and the Brazilian Commitment to the Paris Agreement**

What is Reason?

William Byers

Professor Emeritus in Mathematics & Statistics,
Concordia University, Montreal, Canada

Abstract

This paper considers the central paradox of our time, namely, the triumphs of reason as reflected by the advances in scientific disciplines versus the seemingly inexorable increase in unreason as seen in the growth of authoritarianism and the rejection of science. The roots of this contradiction lie in a circularity in the scientific method itself, which becomes especially prominent in the project of reifying human consciousness. The crux of the problem lies in a misunderstanding of scientific rationality. I shall take another look at what is meant by the "rational process," differentiate it from formal logic, and emphasize its key dimensions of intuition and insight. Creativity is the essential aspect of the rational process. In our discussion we will argue that creativity, seen as reframing or paradigm change, is fundamentally non-algorithmic. Indeed it often finds productive uses for non-logical factors such as contradiction and ambiguity. Rationality, like science and mathematics, cannot be separated from its intrinsic connection to the human mind. Much of the damage that follows from technological advances stems from reifying human capacities and then imagining that they stand alone, independent of the human capacities that gave birth to them. Keeping human beings at the heart of scientific and technological developments will allow us to reap the benefits of these advancements and avoid the enormous downside that current social and political trends show us may be coming.

It may seem at first glance as though science is monolithic but a closer look reveals that there are two different kinds of scientific activities that differ radically in their motivation and consequences. The first is motivated by a sense of the grandeur and mystery of the natural world and its resonance in the human mind. To get a good idea of this kind of science one should read Einstein. Science of the second kind is characterized for a need to tie everything down, a need for power and control. Which kind of science will come to dominate research in AI and cognitive science? Will it be the sense of wonder or the need for control?

Which of these two attitudes will dominate depends in large part on whether or not one explicitly acknowledges that there is an essential circularity in the scientific method, namely, that the human mind is both the subject and the object of the research. In much of science this is not necessarily a problem but in AI research and in Cognitive Science it becomes a major factor. Now there is nothing intrinsically wrong with this. It is just the way it is. It is the nature of self-consciousness to be circular in this way. However, it behoves a mathematician to point out that this kind of self-reference needs to be handled with care for it leads to paradoxes and other logical conundrums. You need only think of the work of Gödel in logic

and Cantor on infinite sets. On the other hand, venturing into these murky waters can lead to enormous rewards. This is where we stand today with respect to the research into the nature of mind and intelligence.

Scientific and technological progress inevitably involves a trade-off between benefits and costs. Every major scientific advance disrupts society and creates a new culture. The coming revolution of AI and intelligent machines may well be the most revolutionary change since the advent of the Industrial Revolution. Why? Because we are now dealing with the very things that make us human—intelligence, consciousness, and creativity. The stakes are enormous. The future of humanity and all life on the earth may depend on how wisely we are able to manage the transition that is fast approaching.

I am writing this article in the hope of encouraging researchers in AI to think carefully about the consequences of what they are doing. My aim is not to stop or reverse the progress of this research. That is impossible, we have gone too far down the road we are travelling. Like every previous technological change there are great benefits to be obtained for humanity from the AI revolution. Previous technical innovations produced dire warnings about possible negative consequences but, in the end, society adapted and so it will be this time around. The challenge is to get out in front of the curve recognizing that this revolution threatens to be more profound than others and that, as usual, every possible application of AI, both those with positive and with negative implications for society, is bound to be attempted. We must ask ourselves what we can do to mitigate the most negative consequences and encourage the positive. To do this we must understand the full implications of what we are doing. There is a role for individual scientists, for governments, and professional societies, and for concerned citizens. We are all in this together. It is after all our world that is in the balance—the world that we will pass on to our children and grandchildren.

1. The Paradox of Rationality

There is something very strange going on in the world today. At a time of unprecedented scientific and technological progress, a time of the greatest successes for the scientific method, and therefore for rationality, we are experiencing an explosion of irrationality in the world in the form of authoritarianism and the rejection of scientific evidence-based decision making. Our time is characterized by the simultaneous victory and defeat of reason. This stunning paradox is real and we should take some time to think about it because both sides of the paradox are connected to the future of humanity.

AI and cognitive science lie completely within the long Western tradition of rationality. Yet the world today is often in denial concerning matters on which there is scientific consensus such as the threats posed by global warming and environmental degradation. Many of our political leaders appear to live in a fantasy world which has little connection to reality. However, to only blame these myopic leaders is not enough. We must be brave enough to see the connection between populist anti-science and the hard realities of vast economic and social change that are fuelled by the ongoing technological revolution.

Liberal democracy is under attack everywhere in the world but it is to the tradition of liberal democracy and to science and rationalism that the world must look for solutions to

our problems. Having said that it is still possible that we have an incomplete or inadequate understanding of the scientific method and rationality that contributes to the problems we face.

Computing devices, the Internet, and the globalization of the world's economy have certainly benefitted huge numbers of people. But they have also hurt a growing number of people whose standard of living is decreasing and who are becoming socially redundant—an underclass with little hope that they or their children will be able to ameliorate their economic or social situation. In country after country in the West these people are enraged and easy prey for manipulation by unscrupulous actors. They are open to the kind of populism that focuses their rage on some “other”. We, the intellectual, social, and economic elite, tend to forget these people in our excitement with cutting edge developments in our field but their revenge may be to punish us all by attempting to bring down the very culture that has sustained scientific and technological progress.

“Thinking involves a deep connection between logic, intuition, and insight.”

Change can be stimulating or it can be threatening but in the short term it is often destabilizing. We are living through an unprecedented period of dramatic change and governments by and large have given little thought to the problem of helping people transition economically, socially, and psychologically. Yet the technological revolution is accelerating. The next stage, the one we are talking about will involve a total reorganization of the economic basis of society. Massive number of jobs will become redundant; millions may lose their livelihood. And this time it will not only be people who do not have higher education but will include professionals—accountants, lawyers, stock brokers, perhaps even doctors, teachers, and professors. One might argue that the new economy will produce new kinds of jobs but what about the people who are caught in the transition? How will these people live? How will they get meaning in their lives? The harbinger of what may happen can be found by looking at the first wave redundancy a good deal of which occurred in small towns and rural areas. The crisis manifested itself in a decrease in life expectancy and a growth in alcoholism and drug addiction. You cannot fail to be scared by the statistics. People are being pushed into depression, anxiety, and despair. When you are in such a state, when you are drowning, you will consider any action, no matter how radical or disruptive.

2. The Roots of the Crisis: A Misunderstanding of Reason

I propose to trace the present crisis back to the origins of our civilization—to the Ancient Greeks and their discovery of reason and rationality. Yet the Greeks also had problems with the rational. The Pythagoreans, for example, venerated a kind of literal rationality which for them meant that all numbers were rational (fractions) and that all natural processes such as musical harmony could be described and explained by these numbers. Imagine the reaction when they were confronted with the proof that the square root of two was irrational. Rational numbers and irrational numbers were, in their terms, incommensurate, and as a consequence the hypothesis of rationality had failed. This precipitated a huge cultural crisis.

Irrational numbers were a paradox and a barrier but the story has a happy ending even though it took a very long time for it to come into being. The problems of geometry were fixed up, the assumption of rationality (or commensurability) was dropped, and a new class of numbers was ultimately invented, the real numbers, that removed the problems that existed in the system of rationals. That is the kind of creative solution that we are hoping for with respect to the current cultural paradox that also flows from a flawed conception of rationality. We too have a problem with how we understand the rational process. The nature of the problem will be made clear through the consideration of the geometry of Euclid, which is one of the foundational elements of the whole scientific enterprise.

3. Euclidean Geometry

Euclidean geometry is one of the intellectual roots of the technological revolution that is about to sweep over us. I am thinking about Euclidean geometry these days because I am teaching the subject to my thirteen-year-old grandson in order to give him a little intellectual enrichment. It is not taught in schools any more but friends and colleagues who are scientists and mathematicians all concurred that the subject had been important to them in their intellectual development.

Why study Euclidean geometry? Most people regard Euclidean geometry as the prototype of a deductive system—definitions, axioms, and theorems deduced through pristine logical thought. They may believe that the subject is algorithmic so that it could be done by a computer. In other words, they imagine that Euclidean geometry could be done without human intervention in exactly the same way that some people believe that AI systems can operate independently of human beings. So is Euclidean geometry a matter of pure deductive logic?

The significance of Euclidean geometry to the mathematician goes beyond its theorems. It includes the means through which these results are obtained and these means are not confined to logic much less to algorithms. Euclidean geometry was such a significant part of the education of scientists, physicians, and mathematicians of my generation because it taught us how to think. In particular it showed us that thinking involves a deep connection between logic, intuition, and insight. It turns out that the lived reality of doing geometry is far richer than many people think.

“Doing” Euclidean geometry works like this: First of all, you have to think up some geometrical statement (or potential theorem) which is interesting and accessible on the basis of current knowledge. (This is akin to deciding which hypothesis to test in a scientific experiment.) Then one has to decide (a priori) whether the statement is true or not. If you guess ‘no’ you try to find a counter-example. If you guess ‘yes’ you try to construct a proof. Any proof is built around some idea which may turn out to be a geometrical construction. In other words, you have to know why it is true before you try to prove it. It is only at this stage that you attempt to write down a proof and this is the only step in the procedure that is strictly logical.

Thus doing geometry (and the rational process in general) involves intuition (developing the hypothesis and guessing true or false), insight or creativity (coming up with the hypothesis

and the idea for the proof) and logical argumentation (for the purposes of verification and communication).

“The creation of the rational number system in human culture or in the mind of a child is a prototype of an act of creativity.”

All three are essential parts of a deductive system and this is how it feels to work on such system from the inside. This is how it feels to do mathematics. The further you go, the less value you ascribe to the third, logical part. As the great mathematician William Thurston said, “When the idea (behind a result) is clear, the formal setup is usually unnecessary and redundant.”¹ Creative scientists are basically interested in new insights, original ideas. These comprise the essence of science. AI is just another scientific discipline and needs to be judged by the quality of the creative ideas that go into the construction of its algorithms more than by what the algorithms produce.

4. Rationality

When I talk about rationality in this paper I mean the entire process, not just one or two elements of it. To repeat, rationality involves intuition, insight, and logic. Logic is just one of the steps, not the whole ball of wax. This gives us a working definition of rationality. I further propose that we substitute “rationality” for “intelligence” whenever we can. Rationality is a process that can be verified empirically whereas intelligence is a concept that is very subtle and hard to get your hands on.

5. Intuition or Fast Thinking

Intuition is thus an essential aspect of the process of reason. The Nobel Prize winning psychologist and economic theorist Daniel Kahneman is famous for demonstrating that the economic actor is not only logical.² In fact according to Kahneman human beings are capable of two kinds of thinking that he calls fast and slow. Slow thinking is what many people think of as logical thinking. They forget that fast thinking, which is involved in intuition is also essential to rational thought. Fast thinking is what the leader of the free world calls his “gut” and he is a disastrous example of the damage that can occur when fast thinking is unchecked by slow. You can read the history of rational thought as the attempt to control fast thinking with slow thinking but, in my opinion, that would be a mistake for reason has room for both of these modes. AI takes slow thinking, puts it into an algorithm and uses a machine to speed it up. It remains a kind of victory of slow thinking over fast thinking but comes with a cost. Perhaps it would be better to attempt a synthesis of the two.

6. Creativity, Insight and Paradigm Change

Creativity is not to be confused with the production of what is new. It involves insight by which I mean the discovery of a new way to “see” some situation. We understand some event or situation by placing it in a context, that is, framing it. Then the most basic creative act

involves reframing, that is coming up with a new way to understand a given situation or event. What I referred to earlier as “getting the idea” often involves finding the “right” point of view. In science, a frame is called a “paradigm” and reframing is referred to as a paradigm shift. I am thinking, for example, of the way Einstein reframed our understanding of gravity. But to remove the idea of creative reframing from the rarefied atmosphere of genius let me supply a more down to earth example that applies to everyone.

*“Creativity
transcends logic.
It involves the
sudden leap to a
higher point of
view.”*

According to developmental psychologists like Susan Carey, children are born with two primitive but vastly different conceptual systems for number.³ An early conceptual task for children consists of combining these two systems into their first learned number system—the system of the counting numbers: 1,2,3,... That development is a child’s first creative learning experience in mathematics. However, because we are concerned here with the rational, I want to focus on the next step children take a few years later—the reframing of “number” from the frame of the counting numbers to the new frame of fractions or rational numbers. Initially fractions are introduced in terms of relative areas. We all remember that two-thirds was given meaning by dividing a pie into three parts and choosing two of them. Notice that this kind of example does not yet make two-thirds into a number but merely a ratio, that is, a relationship between the numbers two and three.

The crucial question is why is $2/3$ a number at all? If it is a number, then by what process does it become one? The child must come to see $2/3$ as a single object, that is, she must reify the ratio of two to three into a new kind of number. When this happens with respect to two-thirds the child can do the same thing for other fractions. She has then undergone a total conceptual reorganization, a reframing of her understanding of number. Reification of pairs of whole numbers, which brings the fractions into existence, is nothing less than a paradigm shift and yet almost every child goes through this shift sooner or later. Of course we do not call it reframing, we call it learning. We have all been there but we have forgotten and so for us it is “obvious” that fractions are numbers. But there is no reason a priori that fractions should be numbers that extend the system of counting numbers. Moreover, there is no reason why the set of ratios should make up a new number system for which the old operations of arithmetic still make sense. You can see what a big deal it is when you think about the extravagant claims that the Greeks made for the rational number system and how profoundly shocked they were when confronted by the existence of irrationals as was mentioned earlier. The creation of the rational number system in human culture or in the mind of a child is a prototype of an act of creativity.

One crucial point about this example. The two number systems, counting numbers and fractions, are incompatible (or incommensurate) with one another in the following sense. If you ask a child who lives in the world of counting numbers, how many numbers there are between 2 and 3 she will say none. But a child who made the creative leap to the world of rational numbers will say that there are an unlimited number of them. And of course they

would both be correct within their respective frames or conceptual systems. In other words, correct and incorrect are relative terms, relative to context, of course.

Whereas a logical system has no place for problems like contradiction or ambiguity, such problematic elements are the very things which drive paradigm change. In Greek geometry there were “unsolvable problems” like trisecting an angle and squaring a circle. To solve them, you need to change the context of the discussion, that is, reframe the problem. An even more subtle problem concerned the status of the parallel postulate in Euclidean geometry. Questioning its status as an axiom and therefore as “obviously true” leads ultimately to the development of non-Euclidean geometry.

One does not leave their present paradigm willingly or easily; you need to be driven out by a problem that you cannot solve in the old system. For the move from the counting numbers to the rationals the problem might be that the division of whole numbers is not closed within the system of counting numbers. In other words, though you can divide 7 by 3 in the counting numbers (and get an answer of 2 with remainder 1), the answer is not a number in the system you started with.

This leads me to say that creativity transcends logic. It involves the sudden leap to a higher point of view. A problem that was intractable in the original frame becomes transparent when looked at in the new. One further comment is brought out by this example. In mathematics there are many kinds of numbers: counting numbers, rational numbers, real numbers, and complex numbers. This whole hierarchy is built on the primitive idea of “number”. Yet “number” in the abstract is never defined in mathematics. We all have a feeling for number because even a six-month old child has two separate conceptual systems for number. Nevertheless, this “feeling for number” is informal and thus never defined explicitly. The specific kinds of numbers I mentioned are, in comparison, well-defined. In this way the conceptual world of mathematics (and physics) emerges out of an informal world. Number is not special in that regard. What I said also applies to time, space, energy, randomness, and many other concepts. In fact, all of the building blocks of science have informal roots. Mathematics lives in both formal and informal worlds. Intuition still functions in the informal world and creative reframing often has to go back there but logical processes live exclusively in the formal world where things have given explicit meanings. Now apply what I have just said to intelligence and you will see the implications.

“Rationality is the process by which human beings understand the world and themselves.”

7. Strong and Weak Subjectivity and Objectivity

The scientific method is based on the objective truth of scientific results. In this section I would like to take a few paragraphs to discuss the nature of objectivity. Most people believe in a kind of “strong objectivity” which is analogous to what is meant by “strong AI”.

We sometimes say that some phenomenon is “merely” subjective meaning that it comes from personal prejudice or idiosyncratic opinion. Thus we would object to a mathematical

theorem or scientific experiment being influenced by religion, race, or gender. Objective means that such matters, as well as many other cultural factors, do not influence the result. Of course some people consider mathematics itself to be a culture but within mathematics the criterion of independence from arbitrary opinion might serve as a minimal way to differentiate subjectivity and objectivity—we could call this ‘weak objectivity’.

“To make the right choice we need a fair dose of humility and wisdom to remember that all our scientific work is a product of human consciousness, not something that does away with the need for human consciousness.”

However, there is another possible meaning of objectivity. Something is objective in this sense if it does not depend on mind. You could say that it is objective in this sense if it would continue to be true even if there were no human beings around. This must have been the idea behind putting a diagram of the Pythagorean Theorem on Voyager 1 in the hope that the truths of Euclidean geometry were universal and would be recognized by any intelligent being. Is the Newtonian theory of gravity objectively true? Most people would say that it is even if that truth is only an approximate one. Is the relativistic theory of gravity objectively true? Is it an eternal truth? Maybe it is but the jury is still out. At any rate a scientific theory is objective in this sense if the theory exists independent of the scientist who formulates or studies it. So some believe that the scientist discovers what is already there, that the rules of the universe are built-in, so to speak. Let us call this strong objectivity.

I, and others, have made the case that mathematics is objective in the weak but not in a strong sense. This implies that the truths of mathematics are human truths, not Platonic truths. So the truths of Euclidean geometry are objective in the weak but not in the strong sense. In exactly the same way one could subscribe to the hypothesis of “weak AI” and not “strong AI”. Notice that the “weak” position depends on an essential connection between human beings and science; the “strong” position on the other hand holds that once the theory (or technology) is established, human beings are redundant. One holds that the process of rationality can operate independent of human beings; the other that human beings are the essential measure of rationality, for rationality is the process by which human beings understand the world and themselves.

8. Moral: Maintain an Awareness of the Human Dimension

The process of reason involves the human mind as its essential irreducible feature. Intelligence is a rational process. Thus what we normally call AI, especially as a strong, a stand-alone, algorithmic process, is not strictly speaking rational. It may be one part of a rational process depending on whether or not it is integrated with human thought processes. On the other hand, AI systems come into being through a rational process on the part of their (human) creators. It is just that the formal processes on their own cannot claim to be rational.

Negative consequences of AI arise from divorcing its achievements from their implications for human society. These implications need to be integrated into the research from the very beginning and it may even be necessary for them to be subject to approval by regulatory authorities consisting of both scientists and concerned lay people. The ultimate arbiter of technological change is its effect on humanity. As Protagoras is reputed to have said, “Man (humanity) is the measure of all things.” We stand at the beginning of a new age of discovery and opportunity. Or we stand at the start of an age of chaos and social disruption. To make the right choice we need a fair dose of humility and wisdom to remember that all our scientific work is a product of human consciousness, not something that does away with the need for human consciousness.

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Notes

1. W.P. Thurston, “On proof and progress in mathematics,” *Bulletin of the American Mathematical Society* 30, no. 2: (1994): 161-177.
2. Daniel Kahneman, *Thinking fast and slow* (New York: Farrar, Straus and Giroux, 2013).
3. Susan Carey, *The origin of concepts* (New York: Oxford University Press, 2011).

Global Leadership in the 21st Century

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Abstract

The world today possesses unprecedented opportunities and capabilities to promote global human welfare and well-being. But it is in urgent need of leadership to tap the opportunities and address the multidimensional challenges confronting humanity today. These challenges are a reflection of the urgent need to project a unifying global vision, build international support and multi-stakeholder commitment, enhance institutional effectiveness, and mobilize global society for effective action. The optimistic consensus that fueled progress at the end of the Cold War has disappeared. The momentum for collective action has dissipated. The recent retreat from multilateralism, democracy, economic cooperation, regional integration, arms control, cooperative security and multiculturalism undermines global cooperation at a time when it is urgently needed to achieve the development objectives of Agenda 2030, address existential ecological challenges, and prevent a relapse into strident nationalism and the Cold War competitive security.

The world is desperately in need of leadership at this critical juncture. Although leadership has most commonly taken the form of great personalities in the past, it is no longer limited to individuals. Leadership is a way of acting. It is a living social process that encompasses the whole society in which and on which it acts. It may be initiated by idealistic individuals or innovative organizations, but ultimately it has to percolate down to influence the actions

of many others in order to generate results. Outstanding individual leaders and the aspiring social collective are complementary forces. The essence of leadership is an inspiring vision of the future. That vision usually encompasses higher values, insightful ideas and growing awareness of untapped opportunities. It is fueled by the rising aspirations of the population transformed into intense social energies released into action. The results it achieves depend on the intensity of society's aspiration for accomplishment, the organization of the ideas and knowledge on which it is based, the clarity of the goals and plans, and the effectiveness of the institutional mechanisms through which it is implemented. Individuals can play a key leadership role in all stages of this process.

The process of leadership transcends the action of one or a few individuals. It includes generating awareness of unutilized social potentials, projecting higher organizational ideas, mobilizing the available global social energies and resources for practical application, strengthening the effectiveness of existing institutions of governance, and releasing a broad-based social movement to transform the compelling challenges confronting humanity today into catalysts for rapid global social evolution.

1. The Context

The end of the Cold War brought with it a period of unrivaled clarity, confidence and optimism regarding the future direction and destiny of humanity. The Iron Curtain was to be replaced by a single open global society. The nuclear arms race was to be permanently halted by a succession of arms control treaties and the dismantling of tens of thousands of nuclear warheads. The WTO presented the prospect of a single world market providing greater economic opportunities for people of all nations. The expansion of global financial markets led to massive investments in developing countries, far in excess of anything ever provided as foreign aid. The formation and rapid expansion of the European Union offered the promise of ever-increasing cooperation and integration of a continent that had been subjected to incessant warfare for centuries. And the unexpected birth of the World Wide Web soon emerged as the first truly global social system, linking billions of people together in ways that were previously unimaginable.

In spite of these impressive achievements and promising prospects, subsequent events during the last quarter century have not unfolded as anticipated. Economically, the 2008 financial crisis caused by unregulated international financial markets has shifted trillions of dollars of resources from investments in the real economy to short-term speculation. The global economy has yet to recover its previous buoyancy. Protectionist sentiments have reasserted even in the bastions of free trade. Economic inequality has risen to levels not seen since the 1920s. Unemployment, especially youth unemployment, remains high and faces the threat posed by the automated technologies of the 4th Industrial Revolution. Politically, there has been an unexpected retreat from democracy and the rise of populism and polarization among democratic electorates in many countries. The resurgence of neoliberalism threatens to unravel many of the important gains achieved by decades of social democracy. The growing dominance of money in politics and widespread persistence of corruption in many

forms are undermining confidence in the future of democracy. After two decades of rapid expansion, the European Union confronts serious problems of cohesion. Brexit is only the most serious of numerous symptoms of a loss of the shared vision that brought and bound European countries together. Multiple destabilizing attacks on the territorial integrity of nation-states have sundered the vision of peaceful coexistence. Nations are closing their borders in response to massive migrations of political, economic and environmental refugees on all continents. The reescalation of the nuclear arms race threatens to reverse the major progress on disarmament so recently achieved. There has been a decline in support for multilateral agreements and international organizations at the very time when more effective global governance is desperately needed. And most serious of all, environmental challenges threaten the lives and habitats of billions of people in this and future generations.

All these negative symptoms are the result of inadequate leadership. While there is a widespread consensus on the nature of the major political, economic, social, cultural and ecological challenges confronting humanity today, agreement is lacking regarding the best way to address them and also on the ultimate consequences or outcomes that can be achieved by coordinated global action. The world perceives its problems, but is largely unconscious of how to effectively address them. It lacks a vision of its collective potentials and a convincing narrative of how they can be tapped.

These challenges all share certain distinct characteristics. None of them can be adequately addressed by individual nation-states acting independently. All of them require a significant degree of concerted cooperative action at the global level. None of them can be effectively addressed without greater support by nation-states for global rule of law and global governance. All of them require the strengthening of international institutions acting on behalf of the world community as a whole. None of them can be fully addressed based on uni-disciplinary social science theories and models. All of them require a shift in intellectual perspective beyond the nation-state to the evolution of the global community. None of them can be successfully addressed solely by the actions of government. All of them require the understanding, support and active commitment of the media, academia, business, civil society and a social movement of the population at-large.

These challenges are manifestations of the urgent need for global vision, direction, organization and leadership. Effective global leadership alone can generate the awareness, understanding, willingness and organizational capacities needed to mobilize global society to fully address them. These challenges compel humanity to accelerate the transition from a group of independent nation-states into a cohesive world community with universally-accepted values, shared aspirations and effective international institutions. Existing social institutions resist change or adopt incremental measures where radical innovation is required. Society remains uninformed, complacent or in denial, in spite of massive efforts to generate awareness and stir nations and people to positive action.

Until the end of World War II, significant achievements were mostly the result of the pressure of extreme events, the violent exercise of power and massive social upheavals. Since then there has been a shift from revolution to evolution, from reliance on force to

reliance on understanding, rights and rule of law. The failure of effective leadership to emerge at the global level following the end of the Cold War has resulted in significant missed opportunities. The loose ends of the past still linger and come back to haunt us. The gap was filled for a time by promising ideas and opportunities generated by the founding of the European Union, WTO and the World Wide Web. But these ideas no longer suffice to guide and direct humanity's progress.

“Leadership is needed to generate awareness of the enormous, unutilized global potentials that can be tapped to accelerate global progress.”

Yet at the very time when traditional forms of leadership appear wanting, some remarkable developments signal the determination of the world community to forge ahead rather than retreat. Since the turn of the millennium, the UN has made unparalleled progress in building a global consensus around universal values and goals for humanity. The most encouraging positive development in recent years has been the adoption of Agenda 2030 by more than 190 UN member countries. The 17 Sustainable Development Goals represent an unprecedented consensus and commitment of the world community to collaborate for promoting the welfare and well-being of all human beings. The acceptance of the SDGs is a momentous achievement. It represents a shift from competitive nationalism to cooperative globalism or humanism based on our common humanity and shared aspirations. It is an outstanding instance of leadership at the global level. The vote by 122 nations in the UN General Assembly to establish a historic Treaty on the Prohibition of Nuclear Weapons in 2017, the first legally binding international agreement to comprehensively prohibit nuclear weapons, is another important sign of global progress. The UN climate talks at Katowice in December 2018, which involved 195 UN member states, succeeded in creating a rule book for implementation of the 2015 Paris climate treaty. These talks signify a willingness for action, provided the right leadership can be provided. These achievements signal a convergence of vision and values by the nations of the world community and a growing commitment to collective action on a scale and at levels never before witnessed.

2. The Need for Global Leadership

Fundamental questions remain as to how to mobilize global society to convert these unprecedented advances into practical results. The human community is searching for a compelling vision of our collective future and for effective strategies and pathways for coordinated, mutually reinforcing global action. Leadership is needed to generate awareness of the enormous, unutilized global potentials that can be tapped to accelerate global progress. It is needed to challenge outmoded, unidimensional theories and compartmentalized models, narrow national and sectoral perspectives, piecemeal stakeholder strategies and fragmented institutional functioning that obstruct global social progress. It is needed to formulate comprehensive, integrated strategies and policies capable of mobilizing all stakeholders in the

global community and directing all the available global social energies for practical application. And, most of all, it is needed to fully unleash and mobilize the energies of global society, to release a broad-based social movement to transform the compelling challenges confronting humanity today into catalysts for rapid global social evolution. Leadership is needed at the level of local communities, nation-states, regional entities and international organizations to convert those capabilities into effective actions to achieve concrete, tangible results.

These needs raise fundamental questions regarding the nature of leadership and how it can be generated. Clearly, global leadership cannot be embodied in a single individual, institution or group. Global society is too vast, diverse and complex. It will require generation of an inclusive social movement fueled by a common vision, shared values, inspiring ideas, compelling goals, dynamic individuals, energized organizations and committed stakeholders. Building that consensus and forging that coalition is an act of true leadership which the world ardently aspires for and can fully respond to, as it did a quarter century earlier to bring down the Berlin Wall and authoritarian communism, end the Cold War and the nuclear arms race, democratize and liberalize Eastern Europe, reunite Germany, found an inclusive European Union, and usher in a period of unprecedented global peace and cooperation.

The motto of the World Academy of Art & Science is *leadership in thought that leads to action*. In 2013 WAAS partnered with the United Nations Office in Geneva to conduct an international conference on the need for a new paradigm in human development encompassing the main principles set forth in Agenda 2030. Since then, WAAS has conducted more than thirty conferences and workshops around the world in partnership with other institutions on human-centered economics, democracy, law, governance, science and technology, social power, education, creativity, leadership, ecology and social evolution in order to better understand the knowledge and theoretical framework, institutions and policies, social potentials and social processes necessary for transition to a human-centered development paradigm encompassing the goals of Agenda 2030. Our objective is to identify effective measures that can be taken to mobilize and direct the collective energies of humanity at the local, national and global level to generate guiding principles, energizing ideas and effective strategies for leadership to address these global challenges.

3. Historical Precedents

History is replete with striking examples of leadership of different varieties, at different levels and in different fields. On assuming office as President of the USA in 1933, Franklin D. Roosevelt confronted the worst banking crisis in American history. The power of government and conventional economic policies had been insufficient to stop the rush of depositors to withdraw their savings from the banks, resulting in the failure of more than 10,000 American financial institutions. FDR realized that nothing he had learned of economic theory had prepared him for this situation and no power of government could compel the American people to stop the panic. He realized the real problem was psychological, rather than financial or economic. In the first of his famous fireside chats, he got on the radio and explained to the people that the real source of the crisis was their loss of confidence and trust in the system. He concluded with his famous words, "We have nothing to fear but fear itself." He appealed to

the American spirit. He asked the people to redeposit their money in the banks. He promised necessary reforms to protect their hard earned savings. Remarkably, the people responded and the crisis was stopped. FDR was known as a great communicator who could inspire trust in the people. But no matter how great his oratory skills were, he could never have performed this incredible feat on his own. His real strength was that he was in tune with the mind and pulse of the nation, the hopes, aspirations and values of the people. Leadership always takes place in a wider social context and understanding that context is critical to providing effective leadership.

So too, the remarkable events that took place in the USSR after the rise of Mikhail Gorbachev to become Secretary General of the Communist Party cannot be fully understood either as the act of an extraordinary individual or as the result of inevitable circumstances beyond anyone's control. We tend to view events in the moment and lose sight of the historical precedents and underlying social currents that shape leaders and determine the results of their actions. The truth is far more complex. The forces that prompted Gorbachev to introduce his policies of *glasnost* and *perestroika* can be traced back to the time he was a university student when Khrushchev denounced Stalin's crimes against the Soviet people soon after his death. This shocking revelation had its impact on the minds of idealistic youth such as Gorbachev. So too, the forceful suppression of the Hungarian Revolution a few years later destroyed the prevailing myth that all Soviet Union's allies were willing members of the Eastern bloc. This disillusionment was reinforced twelve years later when Soviet tanks poured into Czechoslovakia to suppress the democratic movement known as the Prague Spring. Gorbachev acknowledged the importance of these events when he was asked in 1987 about the difference between his policies and those of Czech Prime Minister Dubček in 1968. He answered, "The difference is nineteen years." The seeds of *glasnost* were born long before they sprouted and Gorbachev's remarkable initiatives to transform the USSR were an expression of a long-suppressed aspiration of a younger, more educated generation for freedom.

In some cases, the historical roots of great events date back so far that it is difficult to find their origin. The reunification of Germany in 1991 came so suddenly that even as recently as June 1989, Gorbachev and German Chancellor Kohl were convinced it would take several decades at the very least. Their actions in facilitating the event were certainly significant, but do not tell the whole story. The forces compelling the reunification of Germany date back to the origins of the Holy Roman Empire in the 9th century and the central role Germany has played in the political life of Europe ever since. The significance of German unity was well understood by Napoleon, who successfully dissolved the empire a thousand years after its birth. It was understood by Hitler who tried to revive it, by the Russians and Americans who divided it, and by Gorbachev and Kohl who presided over its reunification.¹

History books commonly describe the League of Nations as a failed attempt and its leader Woodrow Wilson as a failed leader. But, in fact, the key elements of the League were carried forward by its successor, the United Nations. Many of the same people who had fashioned the international administration of the League migrated and took up similar positions in the UN and implemented similar ideas. The League was not a failure, but rather a preliminary experimental attempt at international governance that could not succeed until global public

sentiment arising from the monstrous suffering of the Second World War had exhausted the ambitions of nationalism and the energies of aggression. Wilson was not a failed leader, but simply one who voiced a call that would gain acceptance two decades later.

4. Social Preparedness

Humanity looks to strong leaders to guide it through challenging times. Great individual leaders arise in times of great crises and transition points such as the American Revolution, the Second World War, the movement for Indian Independence, the Civil Rights Movement, and the end of Apartheid. But a closer analysis reveals that *great leaders are themselves the products as well as the catalysts of the awakening of the societies in which they arise. Outstanding individual leaders and aspiring social collectives are complementary forces.* Leaders arise to give conscious expression to emerging social ideas and ideals. The most visionary of those leaders come to prepare society by projecting seed ideas that take root and blossom afterwards. Today that vision is obscured by confusion and dampened by widespread pessimism. New leadership is needed to both project and respond to a clearer vision of the future humanity aspires to realize.

Leadership always takes place in a context. No matter how great the individual leader, the results always depend on the readiness of society to respond. That is why we witness so often throughout history the gathering of great leaders at particular moments in history, rather than their equal distribution in space and time. It is no coincidence that Washington, Adams, Franklin, Jefferson, Madison, Hamilton and Monroe all arose to leadership positions at the birth of the USA. Indian Independence was similarly blessed by a confluence of outstanding individuals at the same moment in time—Gandhi, Nehru, Rajaji, Patel, and Prasad are only the better known of them. So too, Churchill, FDR, Stalin, Hitler and Mussolini—though very different in personalities, values and aspirations—were all the product of the same age and forces which compelled global society to make the first tentative transition beyond the nation-state.

To truly understand a single instance of leadership we must be able to trace it back to its distant origins in thought and in the conscious or unconscious sentiments of the society in which it occurred. To truly understand the remarkable technological leadership of Steve Jobs, we must trace back the graphic user interface, mouse and other technologies he introduced in the mid-1980s to the work of Douglas Engelbart at Stanford Research Institute two decades earlier. The genius of Steve Jobs' leadership was not his technological insight or inventiveness. In the early days at Apple that role was played by its co-founder Steve Wozniak, a brilliant and creative engineer who pioneered the personal computer. Jobs' real genius was in sensing the aspirations of society and finely attuning his actions to synchronize with that pulse. In many ways Jobs was a typical American of this period. He was born and raised in a country that worships mechanical inventiveness. Americans made building, repairing and playing with machines a national pastime. Jobs grew up during the early days of the transition from mechanics and electricity to electronics. He was a product of the Hippie Movement, which valued personal freedom and individuality and feared authority and conformity above all else. He understood the deep anxiety generated among youth by the idea of huge mainframe

computers running the world. He saw the PC as an instrument to empower the individual rather than dominate and replace him. The release of the Macintosh in 1984 was hailed as the start of a spiritual revolution. Even more than the products he created, Jobs became an icon and visionary leader of creative individuality. His vision was matched by a remarkable capacity to think outside the box and see beyond ‘what is’ to ‘what could be’. With the birth of the World Wide Web, he saw the possibility of making the PC a part of a global interconnected system. This led to the introduction of the iPod and transformation of the music industry. That same vision gave birth to the iPhone and iPad and made Apple the most valuable company in the history of the world.

5. Seed-Ideas

It is noteworthy that the acts of leadership by FDR, Churchill and Gorbachev were very largely conceptual, at least during their initial stage. They perceived the challenges they confronted differently than others did and succeeded in communicating their new perception to other people. FDR had the insight to understand that the root cause of the US banking crisis in 1933 was psychological, not economic or financial, and that the only effective remedy was to change the way people thought and felt. In Gorbachev’s case the actual scope for action was severely limited by the power of entrenched forces within the Communist Party which he headed. Unable to impose radical reforms, he did the next best thing. He opened the windows to the world so the Soviet people could see for themselves what the rest of the world was like. That awakened an aspiration and released a movement which the force of authoritarianism could no longer contain either in the USSR or its satellites.

History extols Abraham Lincoln for abolishing slavery in America after defeating the Confederate army in the Civil War. But this is a short-sighted view of a great achievement. The right to freedom had been growing in Europe for centuries before it was enshrined in the American Declaration of Independence. Its application to black Africans spread with increasing rapidity from 1700 onward. A growing movement against slavery began in Europe and gradually spread around the world. At first, nations banned slavery in the home countries, then they banned the slave trade, and finally they banned slavery in their colonies. By the time Lincoln came to power all of the northern states in the USA already had laws banning slavery. Lincoln’s heroic idealistic leadership rode on the growing momentum of this global social movement irresistibly advanced toward completion.

Freedom is a fundamental and universal value that has fueled revolutionary movements for millennia before the ancient Israelites sought to escape from Egypt. Throughout the world, the call for freedom originated at the higher levels of society when the powerful and privileged demanded recognition of their rights, as the feudal English barons won concessions from King John in the Magna Carta. Values such as freedom, equality, rights, truth and self-determination have played a powerful leadership role for as long as human beings could think and act for themselves. These values are enshrined in the demand of the American colonists for no taxation without representation, the Communist Manifesto, and every revolutionary and evolutionary movement founded on the aspiration for greater human rights and dignity. On becoming Prime Minister, Churchill did not consult his cabinet or parliament or conduct

a referendum to determine the will of the people to fight the Axis Powers. He consulted his own deepest perception and feeling and spoke on behalf of the entire nation. He stirred the nation to incredible acts of bravery by appealing to the English love of freedom with the words “We shall never surrender”. The magnificent response of the British people to his call shows how well he had understood and how deeply his words gave expression to their determination. The power of FDR’s words arose from their appeal to American pride in its self-reliance. Martin Luther King knew the power of ideas when he said, “I have a dream”. For the Russian people Gorbachev’s *glasnost* carried the power of revolution.

6. Organization

Individual leaders, ideas and social readiness are essential determinants, but they are not adequate in themselves to account for remarkable acts of leadership. Organization is another critical ingredient. The leader may inspire the people, awaken their aspiration and release their energy, but no leader can accomplish without the instrumentation of organization. For Washington that organization was the Continental Army which he led throughout the American Revolution. For Gandhi it was the Indian National Congress, which had been founded in the late 19th century but was shaped by him into an effective vehicle for independence. In some cases, the organization appears to be of paramount importance and the leader of secondary significance and in others the appearance is reversed. But in all cases their complementary roles are of vital importance.

In the mid-1960s, India faced the threat of dire famine, which FAO predicted could lead to 10 million deaths or more. C. Subramaniam was a senior Congress political leader from the days of the freedom struggle who came from a farming community in the South. Asked to assume responsibility for averting the imminent threat of massive starvation, he declared in Parliament the goal of making India self-sufficient in food grains within five years. To a nation habitually dependent on massive food aid from the West, his proclamation was met with laughter and derision, even by members of his own party. But he did not stop with proclaiming a goal. He followed through by creating a host of new agencies designed to support the rapid transformation of Indian agriculture, including organizations for hybrid seed production, fertilizer manufacture, warehousing, marketing and distribution of grain surpluses to deficit areas, and a commission for ensuring remunerative prices to farmers. He organized 100,000 demonstration plots on farmers’ lands to demonstrate advanced production techniques. He also reorganized the nation’s agricultural research institutes to ensure coordination of all their activities. As he often insisted, the government did not solve India’s food problem. The farmers did. His strategy was based on an understanding of the psychology of uneducated farmers and finely tuned to win their support and released their initiative to enhance production. Within five years India’s foodgrain production rose by 50% and it doubled in 10 years. The country was already exporting surpluses by the early 1970s. By then India’s Green Revolution was spreading to countries around the world. What began as an idea in the mind of a visionary leader, acquired power through development of a new social organization and resulted in a broad-based social movement of the whole society.

There are countless examples of this type—many of which achieved their goals without any support or involvement of government. India’s IT Revolution from the mid-1980s was

supported by favorable public policies, but it was led and carried out almost exclusively by the private sector, including what soon became the two largest IT training companies in the world. In time it transitioned into a mass social movement that captured the imagination of the enormous urban population of the whole country. From a mere US\$10 million in 1985, the country's IT exports have risen more than 10,000 fold to over US\$100 billion.

Sometimes a movement can be unleashed by the token initiative of a small group, formal or informal. The publication of *Limits to Growth* by the informal group of concerned intellectuals who called themselves the Club of Rome became a powerful voice of the global environmental movement. Since its publication in 1972, the book has sold more than 30 million copies in 30 languages. The report became the first serious intellectual challenge to the dangers and unsustainability of mindless, wasteful, resource-intensive economic growth. Another think tank, the Pugwash Conferences on Science and World Affairs, was awarded the Nobel Peace Prize in 1995 along with one of its founders, Joseph Rotblat, who was also a founder of WAAS three years later. The prize was awarded for their efforts to outlawing the use and possession of nuclear weapons which led to the landmark Advisory opinion of the World Court. The transformative impact of Muhammad Yunus' Grameen Bank as a non-governmental organization in rural Bangladesh led to the rapid spread of microcredit institutions around the world.

7. Social Movements

But leadership is not confined to the acts of great individuals or organizations. Sometimes the movement rises from a tiny spark and grows into a major conflagration because the time and conditions are ready for a small token act to set it off. Rosa Parks' token act in segregationist Montgomery, Alabama in 1955 was an act of individual leadership that helped spark the American Civil Rights Movement. When the driver of the bus informed her that black passengers needed to move further to the rear of the bus to accommodate white passengers in front, she simply refused to move. Arrested and fined \$8 by a local judge, Rosa refused to pay the fine and chose to remain in jail instead. Soon the black citizens of Montgomery staged a boycott of the city's public transport system that brought it to the point of bankruptcy, until Montgomery was forced to abolish its segregationist local law. A local clergyman named Martin Luther King seized the opportunity and took steps which led eventually to the abolition of all legal forms of racial segregation and discrimination in America.

In 1964, the Free Speech Movement began at the University of California at Berkeley as a demand of graduate students for a voice in university governance. The movement had a few informal leaders but no formal organization or structure. The decision to stage a sit-in at Sproul Hall, the university's administration building, prompted the university to call in the police. Soon confrontations between demonstrators and teargas-wielding police became a frequent occurrence. The demands of the protesters grew more intense and soon spread to encompass anti-Vietnam War protests, the rights of women and blacks, environmental protection and many other causes. Within four years, campus protests had spread from Berkeley to campuses around the USA, overseas and even behind the Iron Curtain. In some instances, we remember the leaders and in others we soon forget them, but the process is the

same in all cases. It begins with an inspiration, a vision, a value, an aspiration or an idea in the mind of one or a few people and gradually grows in reach and intensity until it captures the minds and hearts of many individuals and groups, institutionalizes itself through one or many formal or informal organizations, and reaches out and down to permeate the society of which it is a part and a leader.

“All acts of leadership mature only when the ideas, values, goals, aspirations and intentions of the leader awaken and release the energy and inspiration of other individuals, acquire the power for implementation through organizations, and express in the general movement of the community, the nation or world. Leadership is a process, not merely a person.”

8. Token Initiatives

The history of leadership confirms that even in cases where there appears to be no scope for effective action, token initiatives can be remarkably powerful. When Mahatma Gandhi announced that India’s freedom struggle must be completely non-violent, the British Raj sighed in relief in the conviction that it posed no threat to their continued rule by force of arms. But when Gandhi called on the people of India to march to the seashores and make salt in violation of British law that taxed this commodity, he demonstrated a way in which the entire nation could reject British authority without firing a shot. Alarmed by his success, the British kept him in prison until he got malaria and then they quickly released him for fear that they might be blamed for his death while in prison. An infectious mosquito proved as powerful as an armed prison break.

Nixon’s surprise trip to China which opened up commercial relations between the erstwhile enemies, Gandhi’s Salt March, the Boston Tea Party, Paul Revere’s ride, FDR’s fireside chat, the sit-in at Sproul Hall, Rosa Parks’ refusal to stand, Martin Luther’s Ninety-Five Theses in 1517, and Churchill’s defiant speech on blood, sweat, tears and toil illustrate the symbolic power of apparently small, insignificant acts in transforming inspired ideas, values and goals into effective action in the real world.

9. The Process of Leadership

These historical examples illustrate the twin dimensions of leadership—leadership as a person and leadership as an act or a process. These two dimensions are inseparable. They always appear together. All acts of leadership originate in the mind or heart of an individual or small group, however long in the past they may have been. All acts of leadership mature only when the ideas, values, goals, aspirations and intentions of the leader awaken and release the energy and inspiration of other individuals, acquire the power for implementation

through organizations, and express in the general movement of the community, the nation or world. Leadership is a process, not merely a person. True leadership results in a complete act that encompasses all the stages from conception to execution and achievement of results. Leadership is the instrument for all new feats of accomplishment, development, creativity and social evolution.

Leadership may be an initiative from above by a fresh act of conception in the mind of a representative individual which is progressively translated into action by society. Or it may be initiated from below by the emergence of an unconscious aspiration in society that gradually seeks for means to find self-expression through receptive individuals who give voice to the aspiration of the collective. However it begins, it always encompasses both ends of the spectrum which are inseparable. The ideas of a unique individual do not acquire the power to move the society. It is the ideas of the representative individual who gives voice to what the collective is silently aspiring for that are received and followed by others.

Leadership occurs at many levels and in all fields of life. Mental leadership gives rise to new ideas in philosophy, new scientific discoveries and technological innovations, and forms of creativity. Social leadership gives rise to new organizations, systems and social innovations. Physical leadership gives rise to new types of actions, such as the explorers who discovered the New World in their quest for a route to India. Physical leadership seeks to satisfy needs. Social leadership seeks to acquire greater power. Mental leadership seeks new ideas and knowledge. Spiritual leadership seeks to affirm higher values. The spiritual leader is a definer of values.

10. Who is a Leader?

The qualities of leadership have been a favorite subject of historical research and popular management books for decades. Stereotypes about leadership pervade all national cultures and have been shaped by history, literature, legend, the media and, most especially, modern cinema. The American stereotype of the self-reliant, masculine cowboy hero who never shrinks from a fight and never loses is pervasive, though the greatest and most revered American leaders—Washington, Jefferson, Lincoln and FDR—do not at all fit that description. So powerful is this mythical image of the strong, aggressive leader that the presidents of the two most militarily powerful nations—Donald Trump and Vladimir Putin—both portray themselves in similar terms and are lost in mutual admiration.

Even in the corporate world, this persona is far from the norm. Jim Collins' best-selling business book *Good to Great* systematically analyzed the characteristics of the leaders of America's most successful corporations and discovered that the most salient feature they shared was a sense of humility. His research showed that leaders who have brought the 'Good to Great' transformation are not the ones who are charismatic or big personalities. Rather they tend to be quiet, modest and deliberate. They are the ones who have the combination of humility and professional will. They think long term and pursue the welfare of the organization rather than their own personal benefit. Their defining characteristic is the willingness to take responsibility for their actions and those of their team and accept

the consequences.² The confusion of effective leadership with egotism is a common error, both among would-be leaders and those who look back on their achievements in retrospect. Leaders inspire others. Egotists offend all but their sycophants. Egotists seek positions of prestige and work of importance. Aspiring leaders accept all the work that needs to be done, however mundane, and execute it so perfectly that it becomes extraordinary. They make every work they do important rather than seek importance. Recognition and prestige come as a result.³

Napoleon has been ranked among the greatest military leaders of all time and extolled for his keen insight, acute perception and rapid decision-making. But the real key to his military success was psychological. As Clausewitz observed, the most important characteristic of great military leaders is not physical bravery, but moral courage—by moral, he means the psychological courage to accept responsibility for decisions, no matter how grave the consequences.⁴ Leaders do not just take responsibility for their own acts, but for everything that occurs under their watch. They take *consciousness responsibility* for what others say and do with or without their knowledge and permission. This capacity is among the most demanding and difficult for human beings to acquire because it eliminates the option of looking for scapegoats, vilifying and passing the blame onto others. The psychological intensity required to adopt this attitude marks an individual as extraordinary and qualified for leadership potential.

Great leaders not only accept responsibility, they are exhilarated by the challenges they confront—as Churchill reportedly felt when he heard that France had surrendered to the Nazis and England had to stand all alone in the war. They also exhibit the capacity to pass on that inspiration to others. Shakespeare depicted this quality in Henry V's address to the English forces at Agincourt before leading them to victory over an experienced French army more than three times England's size. Napoleon believed and demonstrated that the psychological attitude of an army is at least three times as important as its physical numbers. Tolstoy referred to this quality in *War and Peace* as the 'spirit of the army'. This is not merely the stuff of legends and history. Great political and business leaders and team leaders in sports and social work exhibit the capacity to multiply the effective strength of their forces many times over their *paper strength*. Steve Jobs did it when he resumed leadership of a rapidly declining Apple Computers in 1996 at a time when the company's future looked so bleak that Michael Dell advised Jobs to liquidate the company. The leader is one who can evoke that spirit in his or her followers.

High energy is a notable attribute of great leaders. Napoleon, Washington, Theodore Roosevelt, Churchill, FDR, Gandhi, Nehru, Mao, Steve Jobs, Thomas Watson of IBM and many other types of leaders were known for their near inexhaustible fund of energy and their capacity to release it in others by a process of contagion. Energy is the result of aspiration, of willed determination to accomplish. The source of that energy in the leader is not limited by individual capacity. It is universal. The awakened aspirations of the society are an unlimited source of energy for those who know how to tap it. The energy expressed by leaders arises from the ability to identify with and tap into the universal energy of those they lead. Great

leaders come alive when they face an audience of their followers or command vast numbers for a great enterprise, as Mahatma Gandhi, Churchill, Martin Luther King and Steve Jobs came alive in front of huge audiences. The larger the numbers, the greater the energy released. That capacity for identification is not merely mental. Political and social leaders forge a vital, emotional relationship with others and expand by the exchange of energy, just as intellectual leaders thrive on the energy of intellectual exchange with others and great athletes and warriors are energized by the physical danger of combat with opponents.

The age-old debate about whether leaders are made or born overlooks the importance of social context in the making of a leader. In undeveloped societies with low levels of organization and little support for individual development, native capacity and family background are the most important determinants. In highly organized modern societies which systematically develop their organizational capabilities and the capacities of their individual members through education and training, nurture becomes a more important factor than nature. During the 1980s Silicon Valley startups were populated by large numbers of former IBM executives whose former training and experience qualified them to effectively lead new organizations.

Qualities of leadership also vary depending on whether the field of expression is mental, social or physical. The capacity of the original thinker to pioneer new ideas requires an acute awareness of the explicit assumptions and implicit premises that limit current thinking. They develop an intuitive sense of the characteristic limitations of mental reasoning that prevent others from escaping the boundaries of the prevailing conceptual framework. Arthur Conan Doyle portrays this ability in Sherlock Holmes, who is conscious of the common pitfalls of logical deduction and has trained himself to avoid the mistakes made by Scotland Yard.

The tendency of mind to give greater significance and reality to the past and present than the future is another characteristic limitation summed up in common phrases such as “I’ll believe it when I see it” or “If this were really possible, it would have already been said or done”. The physicality of our thought processes prevents us from perceiving what is possible, even when it is right around the corner. The predominant influence of the past and present on our thinking about the future explains why Gorbachev, Kohl and virtually everyone else with intimate knowledge of the situation failed to anticipate the sudden reunification of Germany until it was just on the verge of taking place. It also explains why the victorious nations which structured the UN system in 1945 to preserve their power and preserve the existing colonial empires could not foresee or imagine that within a decade virtually all the great empires of the prewar period would disappear.⁵ Nor could they anticipate that the 51 members who originally signed the UN Charter would multiply to 97 within two decades and eventually to almost 200. Their stated intention had been to limit the number of new member nations, especially the smaller ones which would become an unwieldy collective impossible to manage. The birth of the Non-Aligned Nations and the dominant voice of developing countries in the UN General Assembly was never envisioned by the UN’s founders a decade before it became a reality.⁶ These are examples in which the momentum of social forces overtook and surpassed the capacity of leaders to anticipate.

Mental and spiritual leaders are those who can imagine and envision a future very different than the past, as the Indian sage Sri Aurobindo did when he called for complete independence of India from British rule in 1904 when India's elite aspired only for representative government under British authority. The authors of the American Declaration of Independence had the mental idealism to proclaim the right of all citizens to life, liberty and the pursuit of happiness at a time when slavery was legal and many signatories to that document owned slaves. Apart from the hypocrites, there were some like Washington who saw and believed in the necessity of abolishing slavery and had the temerity to proclaim their belief on parchment long before it could be realized in fact. C. Subramaniam had the capacity to perceive and the ability to inspire India to pursue the goal of self-sufficiency in food grains. His commitment and enthusiastic determination to achieve it released the energy of his peers, set in motion the apparatus of government and motivated tens of millions of farmers to achieve it.

“The adoption of the 17 SDGs by the entire world community is a rare and remarkable instance of mental, political and social leadership at the global level unprecedented in its scope, depth and significance to the future of humanity.”

Effective leaders must master the process of translating their personal perspective into the shared vision, values and goals of the groups they lead; releasing and directing the energies of other people to commit and powerfully pursue this direction; and either create or mold an organization to coordinate and channel those energies into effective action. The vision, values, goals and organization may vary, but the process remains the same.

Vital or social leaders also require the capacity to envision radical change and work for it. Without that vision, they cannot release the energy and determination needed to survive extreme adversity. It was Washington's faith in the future of America that kept his army alive and intact during the harsh Valley Forge winter and against the greatest military force of the world at that time. The principal strength of vital leaders is this capacity to inspire and motivate other people to action and to develop and harness the power of organization to direct those human energies. FDR was extremely personable and a great communicator more than he was a great thinker, though his insight into the cause of the banking panic and feelings of the American people was deeply perceptive. Churchill was far from inspiring in his personal relations, but he knew how to inspire the nation to unimagined feats of heroism. Gandhi proclaimed the lofty ideal of non-violence and persuaded the Indian people to embrace it, but his role in building the Indian National Congress was equally impressive. The greatest reason for the successful transition of India from a British colony to an independent nation was Gandhi's capacity to identify, attract, develop and inspire a generation of second level leaders such as Nehru, Patel and Rajaji to succeed him.

Who is a leader? Inspired individuals, ideas, values, organizations and social movements all play the role of leading the society forward in its evolutionary march. The quest for

effective leadership in times of trial should encompass all these dimensions of the process. In all cases the energy that drives the process is the energy of the collective in which the aspiration arises and which responds to the call of leadership. This explains the remarkable and seemingly miraculous impact that a single individual, idea, or event can have on the life of humanity. It explains the reason why one person can change the world—for though the conscious initiation may begin with a single person or event, it is really the energy of the entire collective that is ultimately responsible for the achievement.

Leadership and morality seem often to be in conflict. We cannot deny the extraordinary capacities of a Hitler or Stalin but are naturally reluctant to discuss them in company with a Washington, Lincoln or Gandhi. Yet accomplished leaders share many characteristics even when their values are opposite and regardless of whether their work is to destroy or to create. There are leaders that carry society forward and there are others that take it back. There are leaders who live for benefit of others and those who expect everyone to serve their own will and needs.

11. Global Leadership Challenge

Over the last two centuries leadership has emanated from many different sources to project new ideas, ideals, values and initiatives to foster the development of global society. International organizations and diplomats, nation-states and national political leaders, visionary thinkers, peace groups, individuals and organizations of scientists, lawyers, physicians, and technocrats, the business community, think tanks, NGOs, religious groups, cultural organizations and many others have all contributed to global leadership. Today new thinking and leadership initiatives are needed at all these levels.

More than ever before, international institutions have a critical role to play in global affairs, as demonstrated by the recent initiatives on climate change, the SDGs and the abolition of nuclear weapons. Still, much greater progress is needed to halt and reverse the erosion of multilateralism. Urgent efforts are needed to formulate coherent concepts and strategies for the emergence of effective global leadership in the 21st century. The emergence of international institutions during the 20th century was the result and response to the suffering and waste inflicted by two horrendous world wars. It was fueled by humanity's rising aspiration for an effective means for peaceful collaboration in shared pursuit of universal values and goals. Today's institutions evolved from ideas and initiatives of leaders and organizations in earlier decades dating back to more than a century. What we do now will shape the course of what is to come. Much can be done by existing international institutions to enhance their internal functioning and external impact. But effective leadership of and by these unique institutions depends fundamentally on the level of awareness, commitment and determination of the people who lead them, their member nation-states and the world's people to forge stronger, more resilient instruments for global governance. Strengthening that awareness and building commitment are vital.

12. Leadership for the SDGs

The adoption of the 17 SDGs by the entire world community is a rare and remarkable

instance of mental, political and social leadership at the global level unprecedented in its scope, depth and significance to the future of humanity. Agenda 2030 embodies in compact form humanity's collective aspiration to create a world that promotes the welfare and well-being of all its members. The readiness of the world community to accept these goals and the infectious energy with which it has inspired countless organizations to work for their realization is a measure of the social preparedness of humanity for a quantum leap in human development. The persistent efforts of the UN over decades have been an important factor in creating that preparedness. The critical leadership challenge today is for the global community, its nation-states and constituent organizations to release the inspired energy and dynamism of its own people and that of other stakeholders at the global, national and local level for rapid and effective implementation of those goals.

What means and methods are available to develop the necessary leadership to achieve these goals? Global leadership can be achieved in multiple ways—through transformative ideas, inspired individuals, and progressive institutions. In the absence of strong individual leaders and effective institutions, a shared vision supported by transformative ideas and practical opportunities can be a powerful and effective means to guide collective human behavior, as UNDP's concept and measurement of human development showed in the late 1980s. The essence of effective leadership is always a compelling vision of the future that can inspire and motivate people to positive collaborative action.

Since aspiration is the driver of all human progress, the first step would be to raise that aspiration to the maximum level possible. Our aspiration is an expression of our consciousness and our consciousness is a function of our awareness. Awareness of the potentials for high achievement is a great motivator. Even greater is the capacity to make real and tangible the anticipated benefits that high achievement will bring.

One obstacle to achievement of the SDGs is the difficulty people encounter in even imagining how life would be on earth if and when Agenda 2030 is accomplished. What kind of world will we be living in? How will it differ from the world of today? What will be the impact on the propensity for war, violence, drug addiction and terrorism when every job seeker has access to gainful remunerative employment opportunities and is equipped with the skills needed to qualify for them? What will be the impact on fertility rates, population growth, mortality rates, healthcare, cultural understanding and tolerance when every human being has access to affordable quality education? What will be the impact on social stability, harmony and human security when inequality is vastly reduced to eradicate the tensions and frustrations arising from the blatant injustice and unfairness of prevailing social systems? What will be the impact on human life and health when the pollution of air and water is eliminated? What will be the impact on our sense of security and confidence when all nation-states are fully committed to address the underlying causes of climate change and the rampant squandering of the earth's resources? And, most importantly of all, we must ask what will be the result of achieving these goals on the peace, sense of ease and well-being of people who have outgrown the need to constantly struggle for their survival or compete with one another for greater material accumulation at the expense of their own psychological fulfilment and inner joy?

We do not have clear answers to any of these questions today. Indeed, we do not even ask the questions and seek to answer them. We know the SDGs are right and good in themselves, but how can we expect Agenda 2030 to fully release the enthusiastic energy of the entire global community to achieve them when the outcome of that achievement remains vague and intangible? A concerted effort to answer these questions, however tentatively and imperfectly, would be one concrete measure of leadership that can be collectively undertaken under the auspices of the UN by a community of stakeholders including national governments, academies, research institutes, universities, corporations and NGOs.

“Leadership in thought among scientists, artists and intellectuals is desperately needed to override the pressures of dogma, self-interest and careerism masquerading as knowledge.”

But energy is not enough. The energy released by humanity’s aspiration and awareness has to be focused and directed to transform it into an effective force. The 17 SDGs and 169 specific targets do provide a general direction. But that is insufficient. For each of the goals and targets strategies need to be formulated and plans developed for implementation at the level of communities, organizations, nations and the world. That still is not enough. The strategies and plans conceived to achieve each of these goals and targets need to be coordinated and harmonized with one another to ensure that forward progress in one area does not further aggravate and obstruct progress in others. So also, we need to ensure that the actions implemented by different organizations at different levels of global society do not conflict with and undermine progress at other points. The shifting of manufacturing capacities from the most economically-advanced nations to developing countries will only reduce industrial emissions and energy consumption of some countries while proportionately or disproportionately increasing that of others, with no overall beneficial effect on humanity and the world as a whole. These questions too need to be asked and answered on a war footing in order to build full confidence that our strategies for achieving the SDGs will truly result in the anticipated benefits. The very process of collaborating on an effort of this magnitude and complexity will promote an unprecedented level of exchange of information and experience and a spirit of cooperation and collaboration in working for the collective benefit of the whole human community.

Granted that leadership succeeds in fully releasing the energies of humanity and focusing it through effective strategies as effective force for accomplishment, the next great leadership challenge will be to restructure and fine-tune organizations at the global, national and local level to align their goals, values, policies and performance with the overall objectives of the SDGs. This will require massive efforts to alter the laws, rules, procedures and incentives that shape the present working of our social, economic and political systems. A complete reframing of our institutions would have immense benefits, but it will also encounter immense resistance and take a long time, unless revolutionary forces rise up to demand radical changes on a massive scale, such as those which followed the introduction of *glasnost*

and *perestroika* in the late 1980s leading in quick succession to the end of the Cold War, the collapse of communism, the dissolution of the Soviet Union and the disarming of 50,000 nuclear warheads. Since we cannot afford to wait that long or anticipate such a revolutionary upheaval to bring it rapidly about, the logical course is to identify and implement every known modification in the existing system that can commence the process of restructuring in the hope that these changes will serve as token initiatives to further release the energy, aspiration, awareness and commitment of global society for more rapid and comprehensive change. That is an effective leadership strategy that has been adopted by great leaders from time immemorial.

13. Need for Transformative Ideas, New Theory and Models

All these leadership initiatives will generate tangible benefits within limits. But they will not result in the fastest, most effective and beneficial outcomes. For they are circumscribed and confined within a narrow and rigid set of concepts, assumptions and theories that severely limit our freedom of thought and action. Efforts to evolve and project a unifying, positive vision and roadmap are impeded by outmoded ideas and orthodoxies, fragmented concepts and theories, discordant perceptions and beliefs, conflicting ambitions, uncoordinated strategies and fragmented competitive institutions. Much of the ideological warfare in the social sciences today resembles the ideological fervor of opposing religious tenets in early times which divided major religions from each other and also from proponents of different sects of their own central faith. And like the religious wars of the past, ideological differences very often pose as mask and justification for struggles for political, social and economic power. We cannot immediately banish the age-old seeking for superior power and advantage by different social and national grouping. But we can impartially inquire, examine and expose the underlying premises and consequences of self-interested rationalization formulated in the disguise as social science. Leadership in thought among scientists, artists and intellectuals is desperately needed to override the pressures of dogma, self-interest and careerism masquerading as knowledge.

The entire world community agrees on the need for achieving the SDGs, but the ideas, strategies and policies remain focused on the action of individual nation-states to address issues that require collective action by all states and coordinated action by the international community based on a global vision. The world community has agreed on the goals. It must now agree on the means to achieve them and the state of the world if we succeed. We need leadership to guide us to think as a whole and act as a whole.

Intellectual leadership is needed to shift the focus from knowledge and actions beneficial to the nation-state to that which will benefit the entire world community and all humanity. Today national economic policies are based on social theories designed to maximize the power of nations rather than the well-being of all humanity. Most theoretical assumptions and economic models are based primarily on impact at the national level without taking into account the competitive, cumulative and compensatory consequences of action by other nations. The destabilizing impact of global financial speculation, globalization of business and rising inequality on human well-being cannot be effectively assessed or managed at the

national level. The persistence of high levels of youth unemployment and the specter of massive job losses resulting from the 4th Industrial Revolution cannot be eliminated solely on the basis of national economic strategies at a time when the increasing interdependence resulting from globalization subjects national economies to the impact of unstable, rapidly shifting global financial markets, exchange rates, interest rates and dozens of other factors beyond their power to control.

“Among the most important changes needed is leadership in education or rather education for leadership.”

The climate threat cannot be addressed through the actions of individual nations alone. National level strategies applied by governments to achieve environmental targets disregard the global consequences of shifting manufacturing to other nations to reduce energy consumption and carbon footprint.

Given the demographics, universal access to affordable, high quality education cannot be achieved in a time-bound manner by incremental expansion of the existing institutions and educational systems at the national level, as now attempted. It requires a global approach that harnesses all the world’s knowledge, talent and organizational know-how to fashion a global delivery system for accessible, affordable world-class education. Ideas, strategies and models must be cast in a whole-world context. The problems posed by international migration cannot be addressed by closing borders and building walls, but only by eliminating the political, economic and ecological factors that disburse tens of millions of people from their place of birth.

So too, global cooperative security for all nations can never be achieved solely on the basis of limited collective security organizations, bilateral arms reduction treaties or an NPT that leaves unrivaled power in the hands of a few nations and incentivizes the proliferation of nuclear weapons to other countries. Yet there is little or no intellectual work being done today on global cooperative security or how to achieve it. Our social sciences need to be reoriented to pursue knowledge that promotes the well-being of all humanity. We need leadership in thought that will foster ideas, concepts and strategies, which can serve as the basis for a coherent and integrated vision of humanity’s shared future.

Global leadership needs to be guided by a human-centered, multi-disciplinary and transdisciplinary theoretical framework. There is an urgent need to reorient the social sciences to focus on people rather than impersonal systems. Unlike the natural sciences which seek to discover the immutable, impersonal laws of nature that govern the physical world, the laws governing human society are strictly man-made and subject to change if we will. Subjective social and psychological factors and processes impacting policies on human welfare and well-being are too often ignored, as great leaders intuitively perceive. This is the truth behind Karl Popper’s warning “against excessive naturalism in the social sciences.” In quest of the scientific objectivity of the natural sciences, the social sciences have gone too far in their emphasis on

material factors, social institutions and measurable parameters. The effort to reduce human affairs to that which can be governed by algorithms has aggravated this tendency. All great leaders and social achievements depend as much or more on subjective factors as they do on the objective. Roosevelt's New Deal, Churchill's victory in the Battle of Britain, India's Freedom Movement and Green Revolution, Japan and Korea's rise to economic leadership, Germany's reunification, the IT revolution, and the rapid development of the European Union were not achieved by military, political, administrative or economic strategy alone.

The division and fragmentation of scientific disciplines have further compounded the problem. The arbitrary division of Political Economy into Economics and Political Science has divided an inseparable reality on the mistaken and convenient assumption that they can be independently understood and mastered. Every political leader from ancient times knows this is an illusion. This is but one example of the general problem. The division of disciplines has led to the illusory division of the sense of responsibility for the consequences of our actions. The fallacy of this perspective led to the founding of Pugwash and WAAS by scientists responsible for the invention of the atomic bomb who later realized the extreme danger of this division.

A similar intellectual divide prevails between the technological and social sciences today. It is well known that the adoption of automated, labor-saving technologies to improve productivity and competitiveness may increase national income while eliminating employment opportunities, increasing inequality and reducing human welfare. Yet the scientific fields and departments of public administration governing them function independently.

14. Education for Leadership

The success of all these leadership initiatives will require and depend on the content and quality of all levels of the global educational system. For education is the most developed social institution humanity possesses for consciously disseminating knowledge to accelerate the process of social development. Expanding, reorienting and reinventing the educational system to support full and rapid achievement of the SDGs would enhance global awareness, receptivity and preparedness for rapid global social evolution.

Among the most important changes needed is leadership in education or rather education for leadership. Our present system seeks to prepare individuals to survive, live and manage and follow the rules in the external world rather than developing in students the knowledge and capacity to initiate and consciously reshape the world they live in to make it a better place. Leadership education is needed at all levels to shift the focus and equip students with the aspiration and ability to develop themselves and change the world.

Leaders are catalysts for social progress. The results they achieve depend on many other factors. We cannot, with confidence, predict total success within a fixed time frame, nor can we rationally deny the possibility of it. For the velocity and magnitude of social progress during recent decades dwarf that of earlier periods and have brought about astonishing achievements

that were unimaginable or at least appeared unachievable just a short time before they were realized. If history can teach us anything, it is not to underestimate the power of human beings to achieve that which they aspire and work for with full determination. Here too, leadership has a critical role to play in giving us faith in our individual and collective power to realize our highest aspirations. This is the greatest and most essential role of leadership.

15. Nexus of Critical Issues in the 21st Century

While leadership itself appears to be a nebulous, intangible quality, its impact on the world at critical moments in social evolution has been momentous, tangible and concrete. It may arise in response to a challenge or a crisis or the emergence of a new opportunity. But wherever and however it appears, leadership has always been prepared in advance by the appearance of a new idea or ideal, affirmation of a higher value or principle, the formulation of a new vision, and the awakening of a greater aspiration among the populace, to which visionary leaders give expression. The world today is not lacking in information or ideas, but it is lacking in clarity as to how the emerging possibilities will work themselves out in the world and what will be their impact on humanity.

The SDGs represent a clear and focused leadership challenge for the next decade and their achievement is of monumental importance. But they are themselves an expression of broader and deeper issues that need to be addressed in order to effectively guide global development through the 21st century. These critical issues are often perceived as sets of apparently contradictory and mutually exclusive objectives, vested interests, social forces and corresponding questions seeking for answers.

1. **Ecology and Economy:** What consequences will ecological factors have on the future development of global society? How will they limit economic growth, welfare, and well-being? Can solutions be found to mitigate or eliminate the negative impact of increasing economic activity on the environment? How can the aspirations of developing countries for higher standards of living prevalent in the West be reconciled with ecological constraints?
2. **Technology, Employment and Social Welfare:** How can the rapid development of the emerging technologies of the 4th Industrial Revolution be harnessed to enhance human well-being rather than displace and alienate people from the benefits of economic development? How can the continued development of information and communication technologies be reconciled with preservation of individual rights to privacy?
3. **Multiculturalism and National Identity:** How can the inevitable and irreversible movement toward greater frequency and intensity of inter-cultural interactions and the rich diversity generated by increasing multicultural societies be reconciled with the urge to preserve local/national identities and cultural uniqueness?
4. **National Sovereignty and Global Governance:** In a world in which the globalization of business, financial markets, global supply chains, national competition, and offshore tax havens have largely liberated multinational corporations from the constraints imposed

by national level regulation, nation-states no longer possess the levers for independent economic self-management. How can international institutions be strengthened to effectively govern an increasingly globalized economy and society?

5. **Competitive National Security and Global Cooperative Security:** How can each nation ensure its own freedom for self-determination in a manner that does not threaten or impinge on the equal rights of every other nation? How can the collective security of a group of nations be organized in a manner that does not threaten or perceive to threaten the security of nations left out of the group? How can an inclusive, cooperative global security system be established and governed that minimizes military expenditures yet maximizes the security of all humanity?
6. **Generation and Democratization of Social Power:** The fundamental freedoms enshrined in the Universal Declaration of Human Rights and the goals set forth in Agenda 2030 represent an unprecedented acknowledgement of the rights of all human beings and the need to empower individuals for self-development. Today global society possesses greater power to protect and improve the lives of its citizens than ever before. Yet progress is constrained by the resistance to more widely distribute the instruments of social power at the national and global level. How can the inevitable historical movement toward the democratization and dissemination of power be supported and accelerated?

Presently the world lacks even a vision of how these polarities can be transformed into complementary aspects of a greater, more integral whole. The complete resolution of this opposing priorities will require more fundamental changes in values, perception, theoretical understanding, organizing principles, multicultural relations, public policies and actions. Humanity's leadership challenge in the 21st century is to evolve more equitable and effective ways to reconcile these objectives and transform them into complementary elements of a comprehensive pathway for peace, development and human well-being.

16. Lines of Social Evolution

The knowledge required to forge global leadership can draw insight from a study of the past lines of social evolution. These lines stand out clearer in retrospect. Progress over the century has been marked by a progressive shift

- From isolated, smaller, autonomous, culturally homogeneous communities to larger, heterogeneous, multicultural nation-states giving rise to an increasingly interconnected and interdependent global community.
- From settlement of disputes by use of violent physical force to negotiated peace and rule of law.
- From governance by arbitrary authority to freedom, self-governance and self-determination.
- From military power to economic power, from physical force to the power of science and technology.

- From the rights of privileged elites to universal human rights.
- From the exclusive possession of power by elites to universal human rights and equitable distribution of all forms of social power
- From regarding people principally as a physical resource for manual labor to recognition of their unlimited capacity to enhance their productivity, resourcefulness, innovation and creativity
- From development of natural resources to the development of social capital and the capabilities of each human being through education
- From survival and subsistence to increasing prosperity and well-being
- From emphasis on physical security and wealth generation to human rights, welfare, well-being, freedom, equality and happiness.

It is the challenge of leadership to conceive and perceive the further movement of humanity along these evolutionary lines and to fashion the most effective strategies, organizations and social movements to foster and accelerate that movement.

17. Unanswered Questions

The unfolding future of these evolutionary trends is far from clear. The real task of leadership is to ask difficult questions that others prefer to ignore and seek solutions to both within and outside the framework of values and perceptions that presently limit our ability to address them effectively. Fundamental questions remain to be answered. The questions resolve themselves into two groups—those focused on knowledge and those focused on action.

Knowledge

- How will these multiple lines of social evolution develop and interact with one another in the future and what will be the consequences?
- How can we reconcile continued economic development with ecological security and the rights of future generations?
- How can we ensure that rapid technological advances are made to serve rather than threaten and undermine rising levels of human welfare and security?
- How can nationalities be prepared to accommodate increasing levels of multicultural contact and diversity?
- By what means can the wider distribution and democratization of political and social power at the national and global level be achieved?
- How will nation-states be motivated to cede greater authority to empower effective, democratic international institutions?
- How can human rights and dignity gain primacy over the exercise of power by the privileged and wealthy?

- How can our educational system be transformed into an effective instrument for meeting the challenges of human development in the 21st century?
- By what organizing principle of global governance can the pressing challenges confronting humanity today be reconciled with the contradictions inherent in the self-interested strategies, policies and action of nation-states acting separately and independently from one another?

Action

- What types of global leadership are needed to effectively address the pressing global challenges?
- How can the global leadership gap be filled and where is the leadership to come from?
- What role can nation-states and international institutions play individually and collectively to fill the leadership void?
- What role can civil society, universities, academies and business play?
- What steps can be taken to garner the direct support of the silent voiceless majority?
- What opportunities exist for concerted action and what gains can it achieve?
- How can we combine, coordinate and harmonize leadership initiatives at the global, multilateral, bilateral and national level?

These questions represent knots that have to be untangled, conflicts that have to be resolved. But they also represent opportunities. They contain the keys and the seeds for the future evolution of humanity. They cannot be effectively addressed by mere pragmatic compromises and incremental adjustments. They demand a change in values and perspective which will reveal the unlimited potentials for the future evolution of humanity. The answers to these two sets of questions represent the needed leadership in thought that leads to action.

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Notes

1. Brendan Simms, *Europe: The Struggle for Supremacy from 1453 to the Present* (New York: Basic Books, 2014), 5.
2. Jim Collins, *Good to Great: Why some companies make the leap and others don't* (New York: Harper Business, 2001).
3. Steven Englund, *Napoleon: A Political Life* (New York: Scribner, 2004), 97.
4. *Op.cit.*, 103.
5. Mark Mazower, *No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations* (Princeton: Princeton University Press, 2009).
6. Mark Mazower, *Governing the World: The Rise and Fall of an Idea* (London: Allen Lane, 2012).

Ideas that Changed the World

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Abstract

Ideas have catalytic power to change the world. They are leaders of social evolution. Evolutionary developments in science, religion, art all have at their roots mental ideas that later realize themselves through physical acts. Ideas release the human energy of the collective. That energy is directed into a force for action and becomes effective when it is organized by society. Thus, society is a living organization. History is replete with examples of how major events such as the French, Russian and American Revolutions, India's call for independence, the emergence of Capitalism and Communism, the environmental movement stimulated by publication of the Limits to Growth, had their origins in simple, revolutionary ideas that shook society to its very foundations. Collaborative action is essential to address pressing global challenges. Piecemeal, sectoral strategies of the past may help to an extent, but cannot forge the much-needed psychological unity needed to address global challenges. Unity is possible only in the measure equality in all its forms is made real. Economic equality is the essential basis for sustainable political and social equality. Studied in terms of the evolution of ideas and values, history reveals the pathway of humanity's evolutionary ascent into the future, the problems it has confronted, the errors we should avoid repeating, and the untold opportunities that await development of effective systems of global governance. New economic theory, a human-centered, transdisciplinary education system and a governance model based on psychological, social and economic equality are the foundation for achievement of the Sustainable Development Goals.

The world in which we live keeps constantly changing so much so that the world the present generation lives in is not the same anymore. It is pertinent to ask what causes this change. The world keeps changing because it is a 'living organization'.¹ We say the world is changing but what brings about this change? Great leaders appear now and then and bring about significant changes in the way people live. Recorded history is the narrative that describes the rising comfort level of society. Prior to recorded history, humanity merely survived. Once civilized life came into existence, it required mental direction in the form of thought.

Civilized life is marked by the presence of comfort, but cultured life is even greater. We can say that existence, history, civilization and culture are the graded stages of society. As Man is an evolving mental being, he exhibits capacity for thought that compels him to progress. The animal does not exhibit any such capacity. Human mind observes the world around it through the instrument of thought, which reveals the abundant resources available to it.

The process of observation generates ideas. When these ideas are implemented, they lead to change, which is seen as a form of progress. Such an observation of life, if thorough, leads to the discovery of the laws of life. Using this knowledge, Man is able to command life and make it behave the way he wants. Such a command over life equipped man to launch technological revolutions using coal, steam, electricity and electronics. While these pertain to industry, revolutions in France and Russia were political in nature. Nonetheless, they have had an equally profound impact. Prior to these, monarchy was displaced and democracy was installed by beheading the English king Charles I. When the British Empire was abolished, it led to the creation of 45 new states. Equally, on the religious front, the birth of Jesus and Buddha brought about evolutionary developments in religion.

“A new conception of growth is needed to guide humanity’s future progress.”

The spread of education from the beginning of the 20th century onward has had a dramatic impact on the knowledge level of people all around the world. Education in particular abridges man’s social life. We must note that every major social revolution has been preceded by the launch of an idea. The idea of Liberty launched the French Revolution. Equally so, the idea of economic equality spurred the Russian Revolution. If we see what lies behind the Industrial revolution, we see that it is scientific inquiry and technological discoveries.

In the year 1972, the world was shocked with the announcement that rapid developmental changes were damaging the environment. The Club of Rome became alert to this danger and after studying the problem, it issued a report entitled *The Limits to Growth*, which had a considerable effect on governments and people around the world. Similarly, in the year 1848, the Communist leader Karl Marx released his *Communist Manifesto*. He moved to London permanently from Germany and studied the growth of Capitalism from its inception. He spent most of his time in the British Museum and came up with a report. His study identified businessmen as robber barons. Money showed itself to be the center of Capitalism and this type of social order was mainly run on the strength of violence. The owners of means of production could be wrested of their control only through violence and this knowledge led Marx to proclaim to the Proletariat: “Workers of the World Unite. You have nothing to lose but your chains.”

Economically speaking, only two philosophical systems—Capitalism and Communism—have ruled the world. While the former stresses selfish intensity, the latter values equality of opportunities. As Karl Marx predicted, capitalism showed signs of disintegration by 1825. In 1928, following the Stock Market crash, the American economy plunged into a deep depression, which started spreading worldwide. FDR corrected the malady. Only the arrival of World War II pulled the world economy out of the Depression and got it going again. FDR’s idealism prompted him to propose the Second Bill of Rights, which included the right to employment. His life ended before the Bill could be enacted as law. Communism was founded on the premise of eliminating economic and political inequalities. Conversely, Capitalism was founded on the basis of selfish aggrandizement. Any action initiated is

backed by an idea. That idea is shaped by the collective energy and organized into force. This is applicable to both the Individual and the Collective.

“The need of the hour is for evolution of humanity beyond the nation-state and the gradual emergence of effective institutions for global governance founded on an awakened sense of the psychological unity of all human beings.”

Let us consider the case of the nation-state, which is the final form taken by the collective energy. There was a time in history when primitive man did not understand how a woman conceived. It was presumed that a woman automatically delivered a child without any external intervention. It was her responsibility to train her child to walk and get his own food. Once that happened, her responsibility was over and she went on to beget other children. While the human species advanced, the weaning period kept lengthening. This increasing burden necessitated help from another person. This led to the formation of the family.

Meanwhile, the institution of property came into existence with the added stipulation that a man would give his property only to children his wife had conceived for him and not to any children born to men other than him. This is the historical justification for ancient society's insistence on women's chastity. This explanation sounds very much plausible. Moreover, it is plausible that sentimental reasons can account for a woman's loyalty to a man to whom she had borne many children. Thus, the family was born and it marked the first step in social collective organization.

Man is social and gregarious by nature and at the same time very pugnacious. While his social nature helps to create a large settlement, his aggressive nature generates hostility towards outsiders. Such a tendency for clashing led to the emergence of leaders who led the group during fights and clashes. Over a period, regional or national leaders rose on the scene. Ultimately, this led to the emergence of monarchs and royalty. Once royalty came on the scene, along came notions of loyalty and piety. In the beginning, the Collective was stronger than the leader and so he simply deferred to the wishes of the majority. Love of the land one lived on for ages gradually acquired the hue of patriotism. In this manner, the nation-state came into existence. Before the year 1857, no political entity designated as India even existed. The same was true of both Germany and Italy until the second half of the 19th century. The actions and ideas that have gone into its making are obvious facts. These obvious facts are the inevitable truths of existence turning into history.

We are venturing into a field where there has been no prior research or pioneering work. The field itself has not secured any clarity. No answers can be formulated as even the questions have not been framed. Over time, the development of nation-states and industrialization fueled in humans the aspiration for continuous progress until the Club of Rome challenged that notion by insisting on the limits to growth in 1972. Yet in spite of obvious planetary

limitations, the aspiration persists the world over and is embodied in the striving for limitless growth. But the question is growth of what? A new conception of growth is needed to guide humanity's future progress. Humanity's aspiration needs to evolve from the limitless material consumption to the endless growth of human wellbeing and inner personal fulfillment. This requires a shift from seeking ever more powerful technologies for external achievements to an inner seeking for inner well-being.

“A universal currency is the need of the hour to overcome the limitations of national currency systems.”

Only recently has the world arrived at the form of the nation-state, but the limitations of division of the world into competitive units based on differences of nationality, language and religion are already apparent. The challenges confronting humanity today are global in magnitude and can only be effectively addressed by global cooperation, coordination, rule of law and social culture. The need of the hour is for evolution of humanity beyond the nation-state and the gradual emergence of effective institutions for global governance founded on an awakened sense of the psychological unity of all human beings. This will in turn require other accompaniments including abolition of nuclear weapons, abolition of war and aggression, elimination of destabilizing financial speculation and rising levels of economic inequality. Stated positively, *political liberty must be made real by economic equality*. Beyond that, further steps will be needed to achieve social and psychological equality.

The beheading of Charles I began the decline of monarchy, which received a final death blow through the violence of the French and Russian Revolutions. Inflation remains a key symbol of human duality. Human nature tries to reach goals by going in the opposite direction. When it seeks plenty of wealth, it chooses to do so by exercising austerity. As man evolves, we find him exhibiting such dual attitudes. On such occasions the importance of rationality becomes most evident. The vast expanses of Asia gave rise to emotions while the narrow spaces of peninsular Europe generated thinking and produced the most creative thinkers of the ancient world. Mental culture first emerged in the West in the city-states of ancient Greece, which gave rise to the birth of great minds such as Socrates, Aristotle and Plato.

The initial spark of creative thinking in Greece matured many centuries later as active thinking among the common men of Europe. People in the Middle Ages in Europe were intensely emotional. The vacillation that Hamlet exhibited in Shakespeare's play marks the initial awakening of thinking in the broader population. Hamlet lives among those who unquestionably accept appearances and the status quo, whereas his mind dwells on deeper questions. His deceased father represents the passing emotional man, who remains true to sentiment and convention even when he knows the truth. His father's ghost gives him a command to kill his uncle Claudius, but bids him to leave his guilty mother to her own conscience. But Hamlet is raging to punish his mother first as she had sullied the sanctity of marital fidelity to his father. The emotionally driven human being now receives a mental command. That signaled the birth of Mind in Man. Shakespeare set his play in Denmark at a

time when religious superstition prevailed. It was that emergence of Mind which later spread all over Europe and exhibited itself as mental culture.

Mind is an evolutionary instrument that needs the social support of an institution to solidify itself. It was at this time that Britain took to sea faring and emerged as a great trading nation. The copious rainfall that England received generated luxuriant fields of abundant grass ideal for supporting great herds of sheep. As a result, there was plenty of wool ready for export. England at that time had about 100,000 large and small ships and boats. The discovery of a sea route to India for spice trade gave Europe a big boost for trading. What started as commerce for spice trading grew by leaps and bounds. Soon, Britain established a commercial empire. That later gave rise to London becoming a banking and financial capital. Recently, money has taken the form of blockchain currencies such as Bitcoin. A universal currency is the need of the hour to overcome the limitations of national currency systems. The birth of the Euro prepares for what must eventually result in the emergence of a universal currency capable of supporting the value of true economic equality. The future world is heading in this direction.

Before we understand the concept of economic equality, we must first understand the concept of equality. We now see the Individual as a catalyst of social progress. But in earlier centuries there was no such individual. There was only a social collectivity with an organized being. That collective social entity had consciousness, knowledge and also power. On top of all that, the Collectivity enjoyed some form of delight. When one strikes oil, the oil belongs to those who own the land or the rights for mining it. But in reality, the oil belongs to the whole collectivity. One must understand clearly that no individual left by himself can create technology or any useful resource. The same applies to any corporate entity. It therefore becomes obvious that it is the society that creates and uses technology or any other useful resource.

Humanity has grievously erred with respect to society on two counts. The first error is the habit of becoming a slave to its own creation. The second error is to believe any person who claims that things belong exclusively to him and not to the society. The actual fact is that the discovery belongs to the entire society as it is the whole society that has discovered it in the first place. Let us assume that a lone individual exists on an island. What can such a man accomplish or even if he accomplishes, how can he enjoy his discovery? Until two centuries ago, man worked from dawn to dusk and knew no leisure. His day time was fully taken up with working for his master and employer. Technological advances and increasing leisure have now reduced working hours to 8 hours per day for 5 days. This will be abridged further. It is not possible for Newton to have discovered the principle of gravity without living as a member of society. Values like delight, knowledge and power are collective possessions that have been generated by society. As such they are the rightful possession of society.

Technological advancement should naturally lead to a reduction in working hours. Increasing leisure is the crucible of culture. It is only people who are very physical who need work for their enjoyment. When civilization advances, it raises the physical man to the higher mental level and reduces his physical working hours. Over the last two centuries, humanity has been moving towards mind and away from the body. Previously, history used to be the

history of kings and monarchs or governments. Europe used to be considered the center of the whole world. This is no longer the case. Historian Arnold Toynbee viewed history as the history of societies. We see history is moving away from monarchs and towards people. Political liberty is empowering the common man. Economic equality will ensure that the benefits of production are equitably distributed. The work of the UN supports this evolution by reducing violence, improving health and extending rights to individuals.

Profits should be distributed equitably to reach all stakeholders and not just a company's shareholder. Employment needs to be proclaimed as a birth right, as US President Franklin D. Roosevelt conceived in the Economic Bill of Rights. It should be recognized not only as an economic and political right, but a birth right. Capitalism is an outgrowth of commerce. When the Great Depression struck, capitalism lost much of its vitality. Since 1929, it has been kept alive by human resourcefulness much like a man in coma is preserved on artificial life support systems. Its nature is self-organization.

Today effective efficiency is generated not so much by technological advance as by the social distribution of the process of production. What makes technological discovery possible is the social readiness to empower the individual. When the public is illiterate, printing technology has limited utility. It is the rise of a reading public that spurs advances in printing. Humanity has a tendency to reverse the perception. Napoleon went about campaigning for the spread of democratic ideals of France and he did so by imposing monarchy in places that he conquered. The Soviet Union sought to implement the ideals of Communism through state oppression. India discovered the unity of the Absolute and sought to realize it through caste hierarchy. This policy of reverse perception has its own advantages though. We find society taking a lenient view of the criminal and attempting to transform him. The wealth of today resides mostly with the successors of robber barons of yesterday.

All great achievements of democracy, liberty and equality have only originated as ideas that led to action. The aim of this paper is to find out what actions are called for at present and what ideas will lead to those actions. The practice of agriculture began by imitating the productivity of nature. Similarly, the art of Commerce began after humanity found out that exchange relationships between people lead to the generation of money. In a similar vein, one can argue that man's positive relationship with earth will generate endless joy for the whole of humanity. It is left to humanity to actualize such a vision in the coming future.

Mark Mazower's *Governing the World: The History of an Idea, 1815 to the Present* is extremely informative in this regard. Radhakrishnan, the Indian philosopher, has traced the history of man in terms of his mental development. The available history lends itself to such a review. History can also be studied in terms of institutional development or in terms of values. Anthropologists have studied human history in terms of the tools man has used. In this manner, human history can be studied from the point of view of speech, music, and many other things. Actually, human progress has not been linear or unidimensional, but multilinear and even zigzag.

Progress may be defined as moving from a partial success to total accomplishment. A whole consists of numerous smaller parts. Every small part is a whole by itself. Movement

from a whole to another passes through a metamorphosis. This phenomenon can be traced back to a very small unit, the infinitesimal. That small unit can be observed as energy, force or power. Evolution of form is one line of development; evolution of consciousness is another. In primitive times, the main idea was survival. But in modern times, ideas such as competition, self-reliance and even accomplishment prevail. European aristocracy over the centuries developed truth-speaking as a cherished value.

“The world awaits a global movement of unity based on an inspiring idea or a cluster of ideas.”

Napoleon inspired the people of Europe to aspire for liberty, citing the ideals of the French Revolution. Washington prepared himself to fight for American Independence even when he found many of the American colonists mercenary and indifferent to the cause. Similarly, Mahatma Gandhi inspired the Indian population to fight for Independence. Such movements calling for Independence are backed by the idea that Freedom is essential for human beings. There are many reasons why a movement like the Indian Green Revolution succeeded. The idea of self-sufficiency in food appealed to the self-respect of Indian farmers and therefore the movement succeeded. Ideas that appeal to the population generate social movements that succeed.

It is worthwhile endeavoring now to frame a goal or goals that will release the aspiration and energies of the whole humanity for rapid social advancement. Perhaps, the UN Sustainable Development Goals are a step in that direction. The unrealized potentials of Life are infinite and infinitely positive. Philosophies speak of everlasting joy in heaven. We can also consider its human earthly version. The striking expansion of American prosperity is directly linked with the values of customer satisfaction, which in turn comes from trusting the honesty of customers.

The UN is a great institution with many accomplishments and also many failures. One of its recent accomplishments is the formulation of SDGs that define the collective goals of humanity to be achieved in the coming future. The question is, how are these goals to be implemented? Another question arises also as to who will achieve these goals. So far, great leaders have emerged to achieve great accomplishments. But currently no such great leader is on the scene. Is it possible for a movement to replace the need for a leader? Can a movement be inspired by the emergence of an idea? First, we can only begin from where we are. Let us first define where we are. We are now in nation-states and the next step may be a global state or global governance. However, there is great resistance to this move.

Throughout history human beings have been motivated by incentives such as profit, competition and ambition. At present, mankind is threatened by various dangers such as climate change, job loss and migration of displaced people. Great unifying movements such as the EU threaten to break up due to disruptive forces. No single government can serve as the world leader at present. The world awaits a global movement of unity based on an inspiring idea or a cluster of ideas. This article is aimed at precisely addressing that question.

Germany became aggressive in 1939 and wanted to establish her own empire akin to those of the other great European powers. Hitler dreamed of running his empire with a civil

service similar to the British Raj. However, her imperial ambitions were shattered and she was broken up into four parts after the War. Despite that, the Germans longed for reunification. It became a reality soon after the fall of the Berlin Wall in 1989. We do not find such a similar urge of compelling intensity for unity in the world today. If that urge is not there, at least we can try to make a beginning. While economics is fragmented, there are a few voices calling for New Economic Theory that can support policies conducive to global peace and equitable development. Education can foster the urge for human unity. It has already given rise to new opportunities in the form of online courses. Efforts are underway to develop innovative interdisciplinary and transdisciplinary courses. Much more can be done to convert education into a force for leadership.

In retaliation for America's placement of nuclear missiles in Turkey, in 1962 the USSR installed nuclear missiles in Cuba. The ensuing confrontation played out in the UN Security Council before the whole world nearly led to war. Since then the Cold War ended, Soviet Union disintegrated, Germany was reunited, the EU was established, and several former nuclear powers have surrendered their weapons. With the passing of the Cold War, there is some hope for strengthening the movement toward global peace and unity. Eminent nuclear threats of this type have retreated for now, though they have been replaced by other threats such as climate change and financial crises.

Democracy is in retreat. Rising levels of immigration are fueling a rise in populist politics. Military spending is on the rise, including expenditure on new nuclear forces. The threat of Brexit still hangs in the air while Trump's trade rhetoric has disrupted global markets. Yet, in spite of these setbacks, thoughtful men and organizations can still sense an opportunity to move forward and marshal their resources for action. The SDGs have already caught the attention of the whole world and focused human energies on their realization. The most meaningful action would be to place the implementation of the 17 SDGs on a war footing. Ideas such as this have the power to initiate movements. They are ideas with the power to lead the world.

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Notes

1. Dimitar Tchurovsky, "Mankind at the Crossroads: Civilizational Shift or Self-destruction," *Cadmus* 3, no.6 (2019): 43-66

Mankind at the Crossroads: Civilizational Shift or Self-destruction

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Abstract

Society has two parallel lines of development—the Course of History and the Spiral of Social Evolution. Development is determined bilaterally by objective and subjective factors. The subjective factor determines the content of society; the objective factor determines the structure of the society. The upcoming transition of mankind is evolutionary by nature, i.e. it represents a change in social consciousness, the structure of society and the ruling elite. This is a transition from a hierarchical to a network social structure. Evolutionary transitions have always been very painful for society. The upcoming change is a great danger because it is related to the survival of man as a species. In this situation, the economy and money lose their importance. The peaceful transition to a new form of social organization and a new type of society can be accomplished by the emergence and strengthening of social self-awareness. This is a civilizational change. The alternative is the self-destruction of society, which is not an option for discussion.

1. Problem Stated

Mankind has passed through three developmental eras: polytheism, monotheism, and secular society. From a philosophical and gnoseological point of view, these are three paradigms that explain the world as a whole. According to the first paradigm, the destiny of man is determined by many gods; according to the second, by an almighty God; as per the third paradigm, the driving force of society is the economy. From the development of society, we can draw four conclusions: 1. The paradigm shift is a change in the understanding of *the driving force* of development: many gods, one Almighty God, an economy. 2. The transition from one paradigm to another is determined by the growth of *knowledge*. 3. There are clearly two factors determining development: *objective laws* and *human reason*. 4. The growth of knowledge changes the *structure of society*—Ancient world, feudalism, capitalism. These conclusions are the starting points for analysing society.

Today, mankind faces a civilizational change that requires a fresh look at the world or a New Paradigm. The New Paradigm accepts society, metaphorically speaking, as a “living organism”, which has two parallel lines of development—a *spiral of social evolution* and a *course of human history*. The first line is determined by the objective factor, and the second line by the subjective factor. The driving force is knowledge where the economy is a particular example of the rise in knowledge. In other words, *the development of knowledge* determines

social evolution, and *economy*, the course of history. These lines represent a double spiral whose dialectics define the process of social development as a whole. On the ontological basis, these two lines are indistinguishable, but from a gnoseological point of view they should be clearly distinguished. The course of history is the visible part of the iceberg, while social evolution is the “invisible hand” that determines the structure of society.

The world today is largely dominated by the view that the economy, and in particular money, move the world. The truth is that this applies only to the course of history and in particular, to capitalism. The other part is the boom in the development of knowledge defining the spiral of social evolution. The upcoming transition is evolutionary in nature, that is to say, it represents a change in paradigm, with respect to the structure of society. This is a transition *from hierarchical to network structure*. Change in paradigms has always been very painful, and the upcoming shift is accompanied by a huge risk because it is related to the survival of man as a species. In the face of such danger, the economy, money, military force and all other factors determining historical development lose their meaning. To understand dialectics in the development of society, we need to clarify the laws, the mechanism and the dynamics of social evolution, the role and the possibilities of the subjective factor, “the division of labour” between the two factors of development; analyze history and geopolitics today, and outline the foreseeable future from this new point of view.

2. Laws and Mechanism of the Development of Society

There is a mighty power as old as the very evolution that created life and ecosystems, which strikes with its expedience. The result of this creation seems so reasonable that for thousands of years people have associated this power with a superior intelligence personified as many gods or an omnipotent God, and today, as a product of intelligent design. In fact, it is a blind power for self-organization of matter without objective, introducing order in chaos. It is a creative force that can be defined as biological evolution and the basis on which information is understood as an attribute of matter. After millions of years of biological evolution, this deified but blind power created man as a rational being. In other words, biological evolution created a new evolutionary branch called *social evolution*. Since then, development has taken place in two relatively independent but closely bound lines—*human history and social evolution*. These two lines are ontologically indivisible, but from a gnoseological point of view they should be clearly distinguished in order to understand how society operates as a system and how the system itself evolves as a result of mankind’s developing consciousness and the generation of knowledge. In fact, the growth of knowledge is the driving force of society. This line of development, defined by social consciousness and growing knowledge, can be defined as a *course of history*. The objective factor or the laws of social evolution periodically make qualitative changes in this course by changing the structure of society and by bringing it in line with the achieved level of social development. These transitions define the major developmental epochs, which have a spiral character due to increasing knowledge. From the point of view of material development, the epochs can be classified as pre-history, Ancient society, feudalism and capitalism. From the point of view of spiritual development—animism, polytheism, monotheism and secular

society. This line of development is determined by the objective factor and can be defined as a *spiral of social evolution*. In other words, the course of history is created from social consciousness or human reason, and the spiral of social evolution is a continuation of that blind force creating biological evolution and ecosystems. Biological evolution identified humans as a biological species for 70,000 years, which according to some anthropologists is much more, and the human mind for 10,000 years of historical development beginning with the Agrarian Revolution and domestication of animals. Artificial Intelligence and editing of genes, the latest advancements in the field, probe further into the study of the Universe. At the same time, chemical weapons of mass destruction, atomic & hydrogen bombs, and missiles, are now capable of destroying life on the planet 20 times down to the level of reptiles. On the other hand, greed, egotism, corruption and demagoguery have grown over the last few decades threatening the survival of mankind. The difference between the two lines is obvious and striking. By creating ecosystems, biological evolution works with mutations and time, and the human mind works by resolving contradictions and generating knowledge. Consciousness accelerates development, but also creates preconditions for self-destruction. The course of history is a continuous accumulation of many minor changes, and social evolution provides periodic qualitative changes through relatively rapid transitions to a higher degree of development. This dialectic is determined by four basic principles of social evolution, which carry the power of objective laws.

The first principle defines the relationship between the growth of knowledge and the changes in society and can be stated as “*Ideas move the world.*”

The second principle explores the division of functions between objective and subjective factors in social evolution. It states: “*Subjective factor (the human reason) creates history and the objective factor determines the structure of society, bringing it in line with the level of attained knowledge.*”

The third principle reveals the dependence between changes in social consciousness, the economy, and the governance of society. “*Culture materializes itself in civilization, and declining civilization triggers a new cultural revolution.*”

There are also several factors that shape the structure of society—physical labour, land, natural resources and intelligence. These factors are fundamental to the Ancient world, feudalism, capitalism and the supposed future society. They can be defined as structure-forming factors.

The fourth principle refers to the role of structure-forming factors and states: “*Changes in structure-forming factors determine the spiral of social evolution.*”

Society has three subsystems: spiritual (culture), material (economy), and form of governance. In their interaction, subsystems evolve as a whole but have their own specificity. Thus the transitions in each form three types of revolutions: spiritual (cultural), economic and political. Generally speaking, human reason generates knowledge by resolving contradictions and developing society by creating multiple subsystems, while objective laws periodically balance the three basic subsystems and the set of newly created subsystems like

the development of a living organism. So, from the spiritual point of view, the transition is from animism to polytheism, from polytheism to monotheism, and from it to secular or civil society. From a material point of view, the transition is from hunting and gathering to an Agrarian Revolution as the basis of the Ancient World and a subsequent transition to feudalism and capitalism. Social governance evolved from autocracy to democracy accordingly. It creates the ruling elite that develop, fall and perish along with the systems they govern.

With the emergence of political power or the legitimate right to make decisions within a community, the subjective factor gets divided into two parts—the governed and governors. The first represents approximately 99% of the community. This part generates the knowledge that is the engine of development. The second part accounts for about 1% of the community and represents the governing elite, which also has its dynamics of development. The evolution of the ruling elite of all time passes through three phases of development: constructive, maintaining the status quo and self-destructive.

During the *constructive phase*, the emerging elite work for the development of society and bring about many changes imposed by the new structure, dynamics and culture in society.

During the second phase, the governing elite maintains the status quo but gradually begins to serve itself rather than work for the benefit of society as a whole. It is concerned about preserving and expanding its privileges. At this stage, the government becomes incompetent to manage society due to increasing complexity and lagging mentality. This is manifested by the emergence of arrogance, selfishness, excessive self-confidence. Decisions are made on the basis of a mixture of wishful thinking and obsolete ideological stereotypes.

In assessing the ruling elite at this stage of their development, there is a little underestimated or insufficiently studied psychological (or perhaps psychopathological) aspect of how power changes the human psyche. It is overwhelming power that leads to the development of the “hubris syndrome” (literally “arrogance syndrome”). This is a leadership personality disorder affecting some politicians; a peculiar kind of mental deviation that affects not only politicians but also military commanders and managers of large companies. Lord David Owen, psychiatrist, politician and British Foreign Secretary from 1977-79, and now a member of the House of Lords, described a number of patterns of behaviour that are characteristic of this particular disease in the exercise of power. As an expert combining medical knowledge and political experience, he has a unique insight into how political power affects human behaviour and how the symptoms of this syndrome are shaped. David Owen describes this mental state with scientific precision: Using power for self-glorification. An almost obsessive focus on personal image; Excessive self-confidence, accompanied by contempt for advice or criticism of others; Loss of contact with reality; Speaking as a messiah; Reckless and impulsive actions; and Hubristic incompetence where supreme overconfidence leads to inattention to details; The unshakable belief that in the court they will be rehabilitated; A tendency to accept a “broader vision” to justify incompetence in implementing the policy, which can be called arrogant incompetence; Addiction to power. This is when things do not start to go well, just because too much self-esteem has led the leader to ignore the practical nature of politics.^{1,2,3}

There are several studies on the psychological state of Adolf Hitler, his behaviour, beliefs, tastes, fears and intrusive characteristics bordering on schizophrenia, which explain how Hitler's psychopathology changed Nazi Germany and world history.^{4,5,6} Stalin's psychic profile is similar. However, not all politicians develop Hubris Syndrome or other anomalies, although it is interesting to note that these mental states are directly proportional to the power achieved. Today, political leaders at all levels are at this stage of development. Some leaders are legendary in their blunders, but most are simply incompetent to manage communities that have reached the level of complex systems. This incompetence is not a result of insufficient education or intelligence, but rather a result of misunderstanding of the mechanisms and laws of social development and decision-making led by ideological and wishful thinking. In general, the state of mind and the mentality of the ruling elite that possess excessive power are questionable.

“The socio-engineering models accelerate the development of society but push it in the wrong direction due to the lack of knowledge of social laws and the impossibility of the subjective factor to capture and manage the growing complexity of the system.”

In the self-destructive phase, rulers pass a threshold of incompetence to manage the system, and start blaming the inadequacy of reality. They make seemingly logical decisions in terms of their mentality, which, however, contradict the laws of social development and for that reason lead to self-destruction of the elite and the system itself. Such examples can be pointed out for the elite of all epochs from the Roman patricians to the present-day Power Elite, but we will limit ourselves to only two cases from modern history.

After the murder of the Archduke Franz Ferdinand, Crown Prince of Austria-Hungary, on June 28, 1914, Franz Joseph I (1830-1916) took the seemingly logical decision to launch a “small Balkan war” with Serbia to establish the authority of the empire. Contrary to expectations, the “small Balkan war” spread rapidly to Europe and even globally. As a result of this decision began the First World War and the end of the dynasty itself; four empires and a dozen monarchies disappeared from the map of Europe. Such a suicidal decision was also taken by Hitler. This was the decision to start a “lightning war” with Soviet Russia, which was supposed to end in 3-4 months. In the concrete situation of military success with the implementation of this strategy and the mentality of the Nazi leaders, the decision looked reasonable, feasible and would have gathered support from the generals. However, the end result was the suicide of the Führer and the tragic end of his henchmen. The lesson from the First and Second World Wars is crystal clear—decisions based on military force, ideological and wishful thinking are self-destructive.

The question then is, to what extent have today's governing elite developed? Have they reached the threshold of inadequacy in which suicidal solutions are taken? We will return to

this problem after a brief examination of recent history and today's geopolitics from the point of view of the interaction between the course of history and the spiral of social evolution.

3. Twentieth Century: A Time of Hopes, Illusions and Disappointments

The 20th century was filled with dramatic events in an attempt to resolve global contradictions. The two world wars, the Cold War and the collapse of the Soviet empire are only the visible part of the events. What is behind them was the emergence and collapse of several ideologies. They were the basis of attempts to implement three different models of reorganization of society. The first ideology is related to the attempt to build a communist society in Russia through nationalization of the means of production, which over time may have grown into a "World Revolution" and eliminated capitalism on a global scale. The second ideology was the attempt by the National Socialists in Germany to build a New Order called the "Millennium Reich", based on the idea of national and racial superiority. These two ideologies were followed by political parties that seized power—in Russia through a bloody revolution and in Germany after legitimate elections. Both attempts proved to be unsuccessful and were paid for with a high price by humanity. The third ideology was followed by the financial elite and was an attempt to create a system of governance of society through control and manipulation of the financial system. For this purpose, the gold standard was abolished and the dollar was designated as an international currency. Since the financial system is a kind of "circulatory system" not only for the economy but also for society as a whole, this nameless, quiet and creeping revolution proved much more successful than the other two. In just a few decades, it made the world unrecognizable. In theory and practice, this ideology can be defined as *financism*. It is still prevalent and is at the heart of geopolitics today. In this case, the ultimate goal is to perpetuate the system by building a New World Order.

The common feature of all three systems—communism (Bolshevism), National Socialism (fascism) and financism—is that they have been created by *human reason* and can be defined as *ideological systems* or *socio-engineering models* for the organization of society. Therefore, they are distinct in principle from the political and economic formations created by the objective factor or social evolution—the Ancient world (basically slavery), Feudalism and Capitalism. There are many differences between socio-engineering systems of social organization and political and economic formations created by social evolution. Briefly, I will point out only the principal difference. Ideological models of organization of society are created and governed by the *subjective factor* (political parties or financial elite), and evolutionary formations arise as a result of the action of objective laws and develop as *self-organizing systems*. This peculiarity is reflected in the fact that the socio-engineering models *accelerate the development of society but push it in the wrong direction* due to their lack of knowledge of social laws and the impossibility of the subjective factor to capture and manage the growing complexity of the system. This regularity has the power of law for man-made systems because it determines their appearance, functioning, development and collapse. For this reason, semi-feudal Russia made an incredible jump in its development from dealing with the wooden plow to the exploration of Cosmos, and Germany, which was torn by hyperinflation after World War I for two decades, has become a world power

with the ambition to conquer and transform the world. For its part, financism has shaped the unipolar model represented by the United States which remains at the centre of the technological boom today. This accelerated development of society is due to the ability of the subjective factor to concentrate resources in a determined manner driven by the ideology of direction. Obviously, the purpose of the ruling elite is to define priorities in the development of technology: in the USSR, demonstration of opportunities and political superiority of communism; in the case of Nazis, military industry, while in financism technology is oriented to maximization of profits due to investment in mass production—from modern household equipment in the 1920s, through cars, radio, TVs—in the middle of the century to today’s mobile and digital devices that have changed the world within one generation. On the other hand, the usurpation of power and the elimination of negative feedback regulating the system lead to disproportions in the development of subsystems in society (economy, culture and form of government). The latter factor is a prerequisite for the decline in morality and the inevitable collapse of the system itself. For communism and fascism, this is already a historical fact, and in the case of financism, it is about to happen.

“The irony of history is that capitalism was killed not by the proletariat, as Marx suggested, but by the bankers.”

The determining cause and symptom of the rise and fall of socio-engineering projects is the *contradiction between the development of science and technology and the decline in morality*. Morality ensures the integrity of society. The illusion is that the supremacy of law can provide it. Laws can regulate public relations, but they do not guarantee the integrity of society because they are written by the ruling elite who basically protect their own interests. Symptoms of this contradiction are clearly visible in all three models. Today, under the conditions of financism, the exponential development of science and technology goes hand in hand with a decline in morality, such as the growth of selfishness, corruption and political hypocrisy, presented in a politically correct manner as a “double standard.”

Between financism and capitalism, there is a fundamental difference. Industrial capitalism, described by Adam Smith and Karl Marx, is the product of several successive industrial revolutions, and financism is a product of the subjective factor and is one of the many socio-engineering projects. As a structure and function, it possesses all peculiarities of communism and fascism and will inevitably share their destiny, because when it takes over the governance of society, the subjective factor cannot completely eliminate the role of the objective factor. In the case of industrial capitalism, the system is self-regulated through periodic production crises, and in the case of financism, through financial crises or crises in redistribution as a result of the manipulation of financial markets. In this case, the side effect of the imposition of financial markets is the *emergence of global problems endangering the existence of the human race*. Global problems are usually presented as “politically correct” as a product of “human nature”, but the truth is that they are the outcome of the system. These problems will become unsolvable if we do not change the model of organization and management of society. Marx’s analysis of industrial capitalism is not applicable to financism,

which is built on the manipulation of fictitious money. What he has not predicted is that the evolutionary path for the end of capitalism will not happen through the class struggle that usually accompanies capitalism, but will degenerate into three socio-engineering projects: communism, fascism and financism. The first two hurt capitalism, but financism killed this politico-economic formation in the second half of the twentieth century. The irony of history is that capitalism was killed not by the proletariat, as Marx suggested, but by the bankers.

“In the 21st century, society does not need an ideology, but a scientific theory to explain its structure, functions and development.”

Mixing financism and capitalism leads to an understanding of today’s chaos in the light of ongoing processes. Thus, economists and politicians continue to talk about “left” and “right” policies. These are policies for the distribution of produced goods. They are applicable to industrial capitalism, but they are meaningless in financism because, despite the policy, the redistribution of the produced goods through the financial markets, the lion’s pie, in any case, goes to the financial elite. Furthermore, if society is governed by the manipulation of the financial system, it should not be called democracy but plutocracy. In fact, all visible signs of democracy, such as general elections, mandate, etc., are being reserved for manipulative purposes. Today, the system is something like “demo-plutocracy,” with democracy as the form and plutocracy as content, because a society based on money in principle eliminates all democratic components. Thus, voters elect governments but cannot change the system because all governments serve the financial elite. The side effect of this mechanism is the double standards or hypocrisy of the rulers, inherent to varying degrees in all socio-engineering projects. This inevitably leads to a decline in morality and a collapse of the system.

The 20th century was marked by three big illusions. The first concerned the belief of the Russian Bolsheviks that they were building a communist society which would grow into a “World Revolution” and destroy capitalism. The second illusion was the belief of the Nazis in some mythical Aryan race and their attempt to impose power through building A New Order, called the “Millennium Reich”. The third illusion was the misguidance *that financism is a form of capitalism*. While the first two illusions were at the national and regional level, the third misconception was of a planetary nature. To date, it is shared by politicians, economists, financiers, military officials, journalists and the general public. In fact, these three illusions were three aspects of a fundamental delusion characterizing the 20th century: the belief that *human reason can determine the structure of society*. Let me recall that *human reason can make history, but it cannot change the course of social evolution* that is determined by the objective laws of social development.

When the Soviet nomenclature realized that its system had nothing to do with communism, as described by Marx and Engels in the Communist Manifesto as a product of the evolutionary development of capitalism, but was rather an ideological model for

the reorganization of society, the system collapsed. When a critical mass of geopoliticians, political scientists, economists, military specialists, the intellectual elite, in general, realizes the difference between financism and capitalism, financism can collapse like the Soviet system, starting with “perestroika” of the financial system that generates global problems and threatens not only the Power Elite but also the life of the planet. Theoretically, for the collapse of financism, there are two possible scenarios. I will return to this point again after analyzing several contradictions in the development of society today, at the beginning of the 21st century, and the proposed geopolitical strategies for resolving them.

“What is logical within an ideology can look absurd in another paradigm.”

4. Geopolitics—Ideology or Scientific Theory?

Ideologies represent a system of views and ideas specific to a particular social group, class, or political party. The characteristic of ideologies is that some of these ideas are verified truths, and some are pure illusory. The problem is not in the mix of truths and delusions, but in the fact that no one can reasonably distinguish the illusions of truths in an ideology through logical reasoning. This happens in social practice at a certain price. Politicians build their worldview, knowingly or unconsciously, influenced by certain philosophical ideas. That is why the more influential of them form ideologies themselves. Three of these ideologies determined the fate of society in the 20th century. Lenin, for example, developed the ideology of Bolshevism on the philosophical and economic ideas of Marx. Hitler tried to politically interpret Friedrich Nietzsche’s philosophy. Modern politics is built on the foundations of positivism, and Soros misinterpreted the philosophical ideas of the Open Society of Henri Bergson and Karl Popper. The experience of the 20th century shows that the creation of ideologies through interpretations of philosophical teachings by politicians and financiers is not only wrong but also very dangerous. With the collapse of the socio-engineering models, the ideologies themselves also disappear. In the 21st century, society does not need an ideology, but a *scientific theory to explain its structure, functions and development, with a focus on the survival of the human race as a species and a social entity.*

Today, hundreds of books, thousands of articles and TV shows are devoted to geopolitics. They all make sense, and some offer in-depth analyses explaining what is happening in the world. Unlike geopolitics, the focus of social philosophy is not on current events such as the fate of the United States, Russia, Europe, China, India, the Middle East, etc., but the fate of mankind as a whole. Unfortunately, geopolitical strategies do not propose a clear vision of the future society. Instead of vision they offer speculative concepts such as a New World Order, World Caliphate, Polar Models, Regional Unions, Clash of Civilizations, End of History, etc., which remain within the framework of financism as an ideology. The laws of social development are not sought and explored, but if they are, they could build a scientific theory that defines geopolitics as well.

Today, geopolitics is dominated by concepts proposed by strategists such as Zbigniew Brzezinski, Joseph Nye, Gene Sharp, Francis Fukuyama, Steven Mann and others. One of the

most popular metaphors in geopolitics is that the world is like “a grand chessboard” where different political players are measuring strengths in their quest to dominate and transform the world according to their ideology into a unipolar, bipolar or multipolar model. They believe that the struggle for supremacy between nations and states and the dominance of the stronger player is a proven factor and is, therefore, an indisputable fact and unquestionable law of the development of society. The most prominent representative of this approach based on military force is Brzezinski, who wrote the book *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives*.⁷ Indeed, from the perspective of geopolitics, the metaphor of “the grand chessboard” sounds logical and convincing. From the point of view of social philosophy, however, which accepts mankind as a self-organizing system or metaphorically speaking as a “living organism”, such a picture seems extremely simplified, not to say absurd. Imagine an organism in which two organs or systems are in a struggle for supremacy, or an organ of the organism that vigorously seeks to “privatize” the circulatory system and divert 90% of the oxygen to itself by holding all other cells, organs and systems in a state of oxygen starvation, just to be able to control the organism itself. That is what makes today’s financial elite, through its silent revolution, turn capitalism into financism and want to develop it to a New World Order, hypocritically depicted as a world without wars, violence, and misery. In other words, what is logical within an ideology can look absurd in another paradigm.

“To understand society, it is necessary to study human history and the laws of social evolution.”

The greatest mistake of geopolitics today is the understanding that *society could be governed only by the subjective factor or human reason* without taking into account objective laws. Hence the metaphor of “the grand chessboard” and the ubiquitous right of the stronger, which, according to Brzezinski, have proved their validity throughout human history. This is true for history, but not for social evolution. For instance, Ancient Rome fell, although it was much more civilized than “barbarians”. More recently, several world empires collided during the First World War. In this clash, the stronger did not win, but the monarchies were thrown out of the scene of history as a needless form of governance. This is because society is developing under the laws of the “double helix”, composed of subjective and objective factors. *The human reason creates history and objective laws periodically correct this development towards self-regulation of society as a system.* The metaphor of “the grand chessboard” is valid for the periods of development by the accumulation of small changes, but in the conditions of transition from one system to another, the invisible hand of objective factor turns the political players *from puppeteers into puppets*. Apparently, the metaphor of the grand chessboard does not take this fact into account.

“Soft power” is a concept promoted by Joseph Nye Jr, professor at Harvard University, in the book *Bound To Lead: The Changing Nature Of American Power*, and further developed in *Soft Power: The Means to Success in World Politics*. According to this concept, political decisions should be based on cooperative impacts and a positive role model rather than the use of brute force, threats or money as a means for persuasion. According to Joseph Nye, soft power is achieved by influencing the culture, political values and foreign policy of other

countries.* The problem with soft power is that it does not take into account the role of the objective factor and is not based on the historical development of society.

Gene Sharp is influenced by Mahatma Gandhi's doctrine of nonviolence and has developed a concept for the transition from dictatorship to democracy. His concept of nonviolence is based on the understanding that dictators are never as strong as they pretend to be and people are never as weak as you think they are. On the other hand, violence provokes more violence, when we give priority to dictators and justify their actions. Gene Sharp is reputed to be the father of colour and velvet revolutions. His strategy of nonviolence has influenced the resistance movements in the world, provoked about 30 revolutions and inspired the Occupy Wall Street movement in the USA. He also describes 198 methods of nonviolent actions, arranged in 6 groups and multiple subgroups.⁸ Gene Sharp, however, points out that soft power can also be used in an unfair manner. The theory of nonviolence is limited to the transition from dictatorship to democracy. It does not refer to the transition from one formation to another. For this reason, the consequences of colour revolutions and the Movement "Occupy all streets" remain controversial because humanity's problem today is the transition not from dictatorship to democracy, but from an artificially created form of democracy to an evolutionary formation of democracy.

According to Francis Fukuyama, liberal democracy is the end point of mankind's ideological evolution and the universalization of Western liberal democracy would be the end of history. This is like the cherry on the cake.⁹ Nothing could be further from the truth. Liberalism is an ideology and Western democracy, which is more of a façade, has its own restrictions.[†]

Steven Mann is a career Foreign Service Officer. His theory of chaos and self-organizing criticality is supposed to be the base for strategic thought. Steven Mann rightly points out the limitation of the mechanistic paradigm based on Newtonian physics and mechanics as the theoretical basis for understanding the dynamics and changes in society in the 20th century as a whole. In his quest to introduce dynamism as a factor into the system, he recommends applying the theory of chaos to national security and foreign affairs. From a philosophical point of view, the mechanistic paradigm is an embodiment of formal logic that describes linear causal relationships. Thus, the chaos and dynamics of society should be explored not through the new science of chaos but with the laws of dialectics and dialectical logic analyzed and described by Hegel.

The Anglo-Saxon philosophy of the United States is dominated by the positivism of Auguste Comte, and the underestimation of dialectics is one of the main factors that differentiates it from the continental philosophy, following the traditions of Kant and Hegel. Steven Mann defines chaos in dialectics as the "unity and struggle of opposites". He defines "self-organizing criticality" in dialectics as the "transformation of quantitative into qualitative changes". The mention of World War I as an example of "self-organizing criticality" is also very indicative. This is precisely a transformation of quantitative into

* Joseph Nye, "Bound To Lead: The Changing Nature Of American Power," 1991. <http://www.kropfpolisci.com/exceptionalism.nye.pdf> or <http://varemedia.com/server4.php?asin=B01B11SIUK>; Also see, Joseph Nye, "Soft Power: The Means to Success in World Politics," 2004. https://www.belfercenter.org/sites/default/files/legacy/files/joe_nye_wielding_soft_power.pdf

† Steven Mann, *Chaos Theory and Strategic Thought* <https://archive.org/details/1992Mann>

qualitative changes—the rejection of the monarchy, the emergence of civil society and the imposition of the republic as a dominant form of government. This is not just terminological; it is a methodological difference leading to fundamentally different conclusions and strategic thinking. Therefore, to understand society, it is necessary to study human history and the laws of social evolution.

According to Steven Mann, “In international affairs, all stability is transient... Stability is no more than a consequence, and should never be a goal.” Stability is attainable. In nature, stability is achieved in ecosystems. It is also achievable in society. For this purpose, mankind should understand how stability is achieved by nature and how social evolution differs from biological evolution. To find such a solution, it is necessary to develop a New Paradigm explaining the ongoing social processes and direct the transition from today’s financism to an evolutionary model or artificial model for the organization of society into a new phase of social evolution. I will return to this issue later.

Steven Mann’s understanding that the world is destined to be chaotic because the multiplicity of human policy actors in the dynamical system has such widely variant goals and values is also wrong. Mankind has a common purpose, and that is its survival as a species. If Steven Mann and other strategists do not realize it, this is a consequence of their approach and strategic thinking based on the theory of chaos.

Steven Mann understands conflict energy as that which “reflects the goals, perceptions, and values of the individual actor—in sum, the ideological software with which each of us is programmed. To change the conflict energy of peoples—to lessen it or direct it in ways favourable to our national security goals—we need to change the software. As hackers have shown, the most aggressive way to alter software is with a “virus,” and what is ideology but another name for a human software virus?” Consequently, in his view, strategic thinking should be directed to “ideological reprogramming of society” in the interest of America’s national security. This can be achieved by introducing the appropriate ideological “virus” into it. The main role in this policy lies with the US Information Agency, the National Foundation for Democracy, NGOs and the education system. According to Steven Mann, “The real battlefield in the field of national security, metaphorically, is viral in its very nature. On the level of individual choice, we are under attack by certain destructive strains, notably drug addiction. What is drug addiction but a destructive behavioural virus that spreads in epidemic fashion?”¹⁰

The virus metaphor would reflect the complete misunderstanding of the laws of social development and the catastrophic consequences for the United States and humanity as a whole, if the theory of chaos were adopted as a geopolitical strategy. The problem is not only that the struggle for the individual is led by propaganda and manipulation of public opinion, which are morally unacceptable. The point is that, in the 20th century ideologies died. The theory of chaos is probably the last attempt to manage society through speculative ideology, without taking into account the laws of social development. Let me remind that the emergence, rise and consequences of the other two ideologies—the idea of the Bolshevik “World Revolution” and the Nazis’ experience of building the “Millennial Reich”—ended

disastrously and made humanity sacrifice and suffer. Undoubtedly, it will be the fate of the last ideology aimed at securing the national security of the United States and building an illusory New World Order.

The theory of chaos is an attempt to explain complex processes, events and phenomena that, from the position of the New Paradigm, find a much simpler explanation. The key thesis in the theory of chaos is the idea of “self-organized criticism”. Per Bak and Kan Chen give the following definition of self-organized criticality: “Large interactive systems perpetually organize themselves to a critical state in which a minor event starts a chain reaction that can lead to a catastrophe.”¹¹ In fact, this statement is the systemic explanation of the dialectical law for the transition from quantity to quality.

An overview of geopolitical concepts shows that they offer everything that can be found in an ideology—a power approach, soft power, nonviolence, a theory of chaos. All these concepts are apologetic in nature, aimed at preserving the status quo and eventually perpetuating financism that is presented as neoliberalism. The problem is that mankind faces a civilizational change, and is oriented to its survival as a species and social structure. The chaos that reigns today in geopolitics manifests in colour revolutions, soft power, hybrid warfare, fierce propaganda through the use of fake news, economic sanctions, controlled chaos, political polarisation, etc. and is the result of strategic thinking in geopolitics based on ideological concepts. Steven Mann, however, is right in his insight that true revolution is taking place in the scientific sphere, and its influence can change both the character of modern warfare and the strategic thinking standards. This requires the development of a New Paradigm based on the historical development of society, understood as a living organism, and the use of dialectics as a methodology and dialectical logic as a tool of analysis.

The unsuitability of metaphors of the “grand chessboard”, “controlled chaos” and other geopolitical theories is determined by several factors:

Firstly, those who share these ideologies do not understand the difference between *human history* and *social evolution*. As I have already mentioned, the first is created by human reason, and the second is the outcome of the objective laws of social development. Today, in the context of globalization and the differentiation of society that makes it a living organism, such ideologies are hopelessly obsolete, unproductive and even dangerous. Humanity is in the process of reorganizing from a hierarchical structure into a network structure resembling the integrity of a living organism, and in this case, the experience of the 10,000-year history of a hierarchical organization is no longer relevant.

Secondly, the lessons learned from history are not determined by the observed historical events, which can be and are interpreted differently depending on the information available and the ideological orientation, subjectively, but by *revealing the laws of historical development* that determine the events. For this purpose, it is necessary to know not only historical facts, but also the laws of social evolution.

Thirdly, the changing world *requires a change in thinking*. Formal logic is designed to describe static processes and 10,000 years old thinking is not applicable to the analysis of

dynamic processes. At a time of exponential development of knowledge and cardinal social changes, it is necessary to apply the dialectical logic, because it takes into account these changes. Therefore, people who try to explain society or to lead it should study in advance the laws of development (dialectics) and, in particular, dialectical logic. The dialectical logic is a complex tool for exploring and describing dynamic processes, processes that cannot be explored and described using the laws of formal logic. The search for spheres of influence, poles, political and economic sanctions and the like, and the result of economic determinism and formal logical analysis, are simply geopolitical absurdities. In a living organism, one system cannot dominate and subordinate others because they all work in sync. In case of violation, we are talking about disease of the organism. In this sense, communism, fascism and financism can be considered as social diseases. The “immune system” or the objective factor of society destroyed the first two, the only thing left is financism which determines geopolitics today and can be considered a kind of malignant cancer that has metastasized in all spheres of life. Therefore, wars, which destruct natural and human resources and are the means of mass destruction, are a crime against humanity and must be criminalized and resolutely rejected. They can disappear from the face of the planet only after the collapse of financism as a model for the organization and management of society.

Fourthly, the politicians, mesmerised by planetary chess, imagine that the game of chess is between the pole elite and that each of them has a chance to win. The truth, however, is that this *is a collision between the subjective and objective factors of development*. During periods of evolutionary transitions, the pole elites are rather pieces of the game itself, which the invisible hand of the objective factor moves to regulate the system. Obviously, the elite themselves do not realize that. The outcome of similar chess games is predestined because during all clashes in the past the objective factor has always won. For example, in one of the previous “chess games” the Austrian Emperor Franz Joseph I imagined he was playing planetary chess with the other European monarchies. The truth is that monarchies themselves are a tool in the hands of the actual player—the objective factor. The cost of this chess game was the First World War with 15 million casualties, the collapse of four empires and a dozen monarchies. An analogous chess game is World War II, in which each of the players represented by the relevant socio-engineering models believed that they would win. In fact, the objective factor destroys the first game, and later the other.

Russia and China form their own geopolitical schools but do not offer a vision of the future of the world, beyond the multipolar concept and regional alliances. Perhaps their social philosophers cannot get rid of the influence of Historical materialism. The problem with this school is that it builds on the dominance of a subsystem, the economy, which is accepted as the basis. Culture is seen as a superstructure over the base, and the form of government is completely ignored because the established dictatorship of the proletariat and the one-party system cannot be discussed.

5. Polar Models, Regional Alliances, New World Order or the New Paradigm

Every ideology strives for world domination, a perpetuation of its model and power. In essence, this means striving to build a unipolar model of the structure of the world. Examples

include the dominant ideologies of the 20th century—communism, Nazism and financism. History has shown that this is impossible with the tragic end of the Bolshevik Revolution and Nazis' Millennium Reich, but nevertheless, financism seeks to impose its ideology—The New World Order. This doomed aspiration forms the polar models today. The geopolitics of polar models is a battle for the future of mankind. It began after the collapse of the world's empires at the end of the First World War and was a confrontation of ideologies aimed at world domination—Communism, National Socialism and Financism. Today, the geopolitical battle remains purely ideological.

There is also another socio-psychological movement that is ignored by geopolitical strategists and political analysts. Countries that survived the nightmare of social engineering and the ruin of statehood, such as Germany and Russia, experience a catharsis that frees them from many social myths such as the Russian Revolution or Hitler's Millennial Reich for Germany. This liberation paved the way for their rapid development. Germany is today the most stable developing country in Europe. Such an opportunity is also open to Russia. If Russia faces problems, it is not due to the collapse of communism as a social engineering project but due to criminal privatization. The problem is that the transition was realized by replacing the nomenclatural model with oligarchic management, which practically does not differ from the nomenclatural model, because in both cases management is limited to the concentration of resources and power in the hands of the privileged elite. The difference is only in the nature of power. For the nomenclature, it was the political power that controlled the economy, and for the oligarchy, power is in the money that controlled both the economy and the political power. Unlike Russia, which is surviving the ruin and catharsis of the collapse of communism, the United States is still in the captivity of its illusory ambitions for the New World Order, which is likely to be overcome only after the collapse of financism.

Political ideologies resemble modern religions. Politicians accept some principles as fundamental without any evidence of their veracity and build: anarchic, left, right, liberal, conservative, libertarian, etc. The dramatic story of the 20th century showed how high the price might be to check the veracity of the ideologies of communism and Nazism. The first half of the 21st century determines the scale of the chaos and the global problems posed by the ideology of financism and strives to build a unipolar, bipolar or multipolar model for social organization. This necessitates a change in strategy and attempts to build *regional alliances*. At the base of this strategy are the principles of the creeping revolution of the Federal Reserve's creators, a series of minor changes leading to a liberal elite's goal that remains hidden in society. For example, the European Union has been conceived as an ideological project for the reunification of states through *a gradual reduction to a complete deprivation of national sovereignty* and the transformation of the Union into a superstate. The process started as an economic unification through the creation of a common market. This strategy seems logical and promising due to the proven success of the underground financial revolution that has replaced industrial capitalism with today's financism. The experience so far has shown that the case is different and the strategy is not working as well.

The European Union began as an economic community created by the 1957 Treaty of Rome, which grew into a common market and constituted a customs union between several

countries with relatively free movement of capital and commodities. With the signing of the Maastricht Treaty in 1992, the Common Market became the European Union, which is a political project. Since then, difficult or unsolvable problems have arisen. Brexit is just the tip of the iceberg. This is understandable because the Common Market is a union with one sector; political unification implies the pooling of dozens of heterogeneous structures for the continuous growth of the Member States. Such a union is too complex to think, realize and manage. In such cases, thinking follows familiar stereotypes inherited from history. It is assumed that this alliance will constitute a supranational state with a similar structure and decision-making mechanism. The question is whether this will be a federation or confederation as an organization and form of government or will evolve from a confederation to a European superstate. The problems in the union so far show that this line leads to a dead end.

There is probably something deeply mistaken in the very foundations of the European Union, but politicians still do not know what that is. Of course, there are many analyses made from different points of view. There are speculations of an institutional crisis, the fear of a domino effect after Brexit, the need for reforms, even voices for a possible breakdown of the Union if it stays in current shape. There is no single opinion for now, and it is unlikely to be achieved. The reason is that all analyses are made from the position of the existing paradigm for the essence and development of society, and they are ideological in nature, manifested in various forms of economic and political partiality—left, right, centrist, liberal, conservative, libertarian and so on, which are like political sects, burdened with different ideological myths and illusions. On the other hand, the narrow specialization of politicians and analysts confines them to reflections from a certain point of view—economics, international law, security, without offering a vision for the Union not only as a ruled but also as a self-organizing system. In its present form, the European Union is an ideological construct ruled by the elite without a clear agenda.

The main contradiction in the European Union arises from the clash between subjective and objective factors in the development of society. In other words, the subjective factor in the face of the ruling elite sets goals and tasks that contradict the natural course of social evolution. Since the time of Alexander, the Great, there has been two types of unification of nations: a) on a political and economic basis, usually in a violent manner, for the purpose of exploiting human and natural resources, limiting or withdrawing the sovereignty of one or a group of states. In this way, empires were created. These organizations are formed by the subjective factor. They disintegrate quickly or last only for a few centuries; b) Spiritual formations around certain moral principles. Examples are the world religions formed around moral values that have lived for millennia. The Renaissance influenced the emergence of civil society and united Europe around moral values related to society as a whole. These are the ideas of freedom, equality and brotherhood that have not yet been realized. These types of associations are formed by *the objective factor* because the process reflects the natural course of social evolution as well as the level of social development. It is much slower because it is conditioned by the development of public consciousness. At the beginning of the 20th century development of civil society was “frozen” by the birth of two totalitarian ideologies—fascism and Bolshevism. With the imposition of financism as an ideology, the stated moral values of

civil society were finally stifled and gradually replaced by dominant ones: selfishness, greed, corruption, demagoguery and hidden hypocrisy. It is not difficult to see that freedoms referred as “Euro-Atlantic values” *for the movement of goods, services, capital and people* are not moral values but economic principles of serving the financial and corporate elite. As we know, empires were built on economic principles with a limitation of sovereignty. For this reason, with its enlargement, the EU became an empire resembling the Soviet empire. This is a hierarchical structure, and, as history shows, is extremely unsustainable, unpredictable and transient.

Perhaps the most significant difference between the two types of groupings is that the integration of an economic basis by the subjective factor is realized from top to bottom and the organisations shaped by the objective factor are realized from the bottom-up. For example, Christianity and The Renaissance have united national communities beginning with a change in public consciousness, moving from the bottom-up, which runs very slowly but has lasted thousands of years. The union of the subjective factor by limiting or removing sovereignty starts from the top. It takes place quickly but is transient.

Unfortunately, the European Union’s goal is not formulated unambiguously, clearly or explicitly. According to the official documents, its main goals are to “promote peace, its values and the well-being of its citizens; offer freedom, security and justice without internal borders; sustainable development based on balanced economic growth and price stability, a highly competitive market economy with full employment and social progress, and environmental protection; combat social exclusion and discrimination; promote scientific and technological progress; enhance economic, social and territorial cohesion and solidarity among EU countries; respect its rich cultural and linguistic diversity; establish an economic and monetary union whose currency is the euro.”* Let us note, from a methodological point of view, that these are *tasks for implementation*, not *objectives* and should be reformulated accordingly. In this way, these basic objectives are attractive and desirable but it is unclear how they can be realized. The difference between “objectives” and “tasks” is that the goal is one and ideal, and tasks are the practical actions to achieve the goal set. In this case, the European Union’s objectives may be either the creation of a supranational European state or Union around certain moral values. These two objectives are very different because they require a different approach and structure for the organization of the communities involved in their realization. In one case, a vertical (hierarchical) structure of institutions is built, and in the second, a horizontal or network structure of self-governing communities.

If we proceed from the above-mentioned “key objectives,” it becomes clear that the European Union is an attempt to build a political-economic community or some form of supranational state, federation or confederation. As history shows, however, unions of political and economic foundations with limited sovereignty are perishable and transient. Indeed, this is not a case of forcible unification of sovereign nations in some modern empire, but of a gradual surrender of national sovereignty in the name of “a great idea”, “world peace, order and “security”, “prosperity”, “fight against terrorism and crime”, etc., that is always in

* Key objectives https://europa.eu/european-union/about-eu/eu-in-brief_en

the interest of people's welfare. This is the New World Order aimed at building a world state, run by the same financial elite, where the European Union is only a pilot experiment on how this can be achieved in practice. It seems that the way of giving up sovereignty is irrelevant because it depends on the stage of historical development. It is clear, however, that with the limitation of sovereignty arises internal contradictions which, at a certain stage, inevitably lead to a collapse of the system.

The chosen goal also explains the gradual structuring of the European Union by building supranational institutions similar to the nation-state—the European Parliament, the Presidency, the European Court, the common currency, the Ministry of Foreign Affairs, in prospect building a common army, etc. The unsuccessful attempt to create a European constitution shows the difficulties in building such a supranational state. Following the rejection of the draft European Constitution through referendums in France and the Netherlands, the leadership of the EU tried to resolve the problem by signing the Lisbon Treaty in December 2007, which deepened the issue of governance in the EU. In this situation, Brexit is a symptom of a disease that for now remains an unclear diagnosis for politicians.

The problem with the creation of a supranational state is that from a systematic point of view such a hierarchical structure is impossible to build and manage due to its complex nature. The exponential development of science and technology is changing the world very quickly, forming hundreds of new subsystems that are relatively self-contained and are required to build their own self-regulatory feedback links. On the other hand, the hierarchical organization predisposes the bureaucratization of the system, which is already visible to the European Union with the naked eye. In the EU, there are currently about 50,000 officials or 1,785 bureaucrats per Member State. This is much more than the number of clerks in national governments; not to mention the negative selection of cadres based on loyalty, typical of ideological systems. Hence, in the EU there are a lot of problems. Brexit is only the first obvious symptom.

The disintegration of the European Union would be a terrifying tragedy for Europe, comparable to the years after the First World War. The subsequent devastating chaos will be difficult to overcome and accompanied by a wastage of huge resources, and create a big impact on public consciousness, which may for a long time be traumatized. The benefit of the EU crisis would be a piece of evidence that such alliances are impossible, and should show the governing elite that the pilot experiment for creation of the super-state has failed. Obviously, fundamental reforms are needed. It is also clear that building a European super-state is impossible because it is against the objective course of social development and such a complex system cannot be organized through a hierarchical structure. The EU needs radical reforms. The problem is that the ruling elite has reached the stage of incompetence and is unable to reform the Union. But this is out of our scope.

The New World Order is the last ideological illusion. Such a model of hierarchical social organization is impossible because it contradicts natural laws. The exponential growth of knowledge over recent decades has made society a complex system. In living nature, complex systems are organized as a network and are defined as ecosystems. The most complex system

created by nature is the human brain, which is also organized as a network. Complex systems created by man such as air traffic and the Internet are originally formed and developed as network structures. Only politicians and strategists with ideological and wishful thinking can believe in such opportunities. This can be explained by the stage of development of the ruling elite, which is about the threshold of transition from incompetence to inadequacy regarding the level of the development of society.

The solution for the geopolitical problems we face today is the elaboration of a New Paradigm for the origin and development of society and changing its structure, which metaphorically speaking is a living organism. Today, geopolitical strategists are still not aware of the fact that economic growth is no longer a factor in the development of society. The factor that shifts and defines it in the 21st century is the survival of mankind. That is why the New Paradigm should be built on this principle.¹²

6. The End of Ideologies as an Inevitable Necessity

The explanation for the collapse of political ideologies is relatively simple. Exploitation of power and socio-engineering projects (communism, fascism, and financism) shift power from the subjective factor to the ruling elite. As noted above, the common feature of all social engineering models is that *accelerated development goes in the wrong direction*, resulting from speculative ideology and ignorance of the objective laws that lead to the failure of self-regulation of the system. For this reason, sending a person to space, which is an undisputed scientific and technological success for the USSR, was not able to prevent the collapse of the Soviet empire. In almost all areas of scientific research, the Nazis were far ahead of the allied forces—often by a factor of 10 years or more, but it did not save Germany from catastrophe. For the same reason, scientific and technological development over the next few decades cannot save financism. These are the contradictions between the objective course of development and the ideological bias of the ruling elite.

The technological boom in terms of socio-engineering models for the organization of society fuelled the illusion of the ruling elite and the mass consciousness that the system was working well. In fact, in all three cases, accelerated development is a symptom of the upcoming catastrophe, the consequences of which are being paid by mankind as a whole, and above all, by the nation-bearer of the ideology and its elite. The reason is that society's integrity is determined by morality, not by science and technology, and when ideology, in the name of "security", is directed against moral values, the crash is not only inevitable but also easily predictable. If we follow the logic of the historical development of socio-engineering projects, we will find that the concepts such as "the grand chessboard", the theory of chaos and the idea of reprogramming the society do not guarantee the security of the US, but push the country into catastrophe. This catastrophe is commensurate with the collapse of the USSR and Nazi Germany.

Undoubtedly, geopolitics as an ideology will die like other political ideologies—communism and fascism. Of course, today's ruling elite will oppose vigorously any changes that threaten their privileged position in society, but new ideas have always prevailed,

however weak they may have been at first. From this point of view, the efforts of today's Power Elite to build a New World Order are more than naïve, because they are a result of wishful and ideological thinking of geopolitical strategists and a complete misunderstanding of the laws of social development. In this "geopolitical chess", the polar elite are fighting with the laws of social evolution and have no chance of victory. All elite of the past have been eliminated along with the systems they represented: Roman patricians, feudal aristocrats, communist nomenclature, and Nazi gauleiters.

"Social evolution is the evolution of social consciousness."

As a mentality, the Power Elite today is no different than its predecessors and is doomed together with the system it represents. While geopolitics is based on strategies such as a grand chessboard, controlled chaos, liberal democracy as the end of history, soft power, colour revolutions, unipolar and multipolar models, hybrid war, economic sanctions, and the like, it remains only an ideology and is dying, like all other ideologies. In order to turn an ideology into a scientific theory, politicians and social philosophers should reveal and study the objective laws of social development and clarify what percentage of them is determined by the objective and subjective factors.

To survive as a species, mankind needs not an ideological but *a civilizational model* for the organization of society. A civilizational model for the future organization of society can only be developed by *social philosophy*. At the current stage of the development of society and the knowledge of its essence, economists, sociologists and politicians are involved in constructing such a model, and it may lead to unilateralism and ideological speculation.

According to the New Paradigm, the fundamental contradiction of modern society is between the historically established hierarchical structure and the achieved level of social complexity that requires a network organization of society. The transition from a hierarchical to a horizontal structure is the greatest challenge for mankind in the 21st century. The main dilemma for social consciousness is between the exponential growth of science and technology and the decline in morality. Today, it is extremely clear that all scientific discoveries and technological achievements have a two-sided feature. They can be used for the benefit of mankind, but they could also become lethal weapons. If the goal is to spread evil, the second option is technologically simpler and easier to accomplish. The 20th century technologies based on the achievements of science (nuclear physics, chemistry, and biology) allow weapons of mass destruction to be produced. The resources for this are in the hands of technologically developed nations. Technologies of the 21st century (robotics, genetics and nanotechnology) offer possibilities only with the help of knowledge without significant material resources i.e. resources available to small groups or even individuals to produce weapons with the potential to destroy humanity.¹³ The question arises as to how terrorism would look like under these conditions, and how the survival of mankind could be ensured. The truth is that no external security system could save humanity. The integrity of society can be maintained only by the supremacy of morality. Today it is becoming increasingly clear that the clash between the obsolete mentality of the Power Elite and social evolution can lead to the greatest tragedy in history, self-destruction of the human race.

7. The Dilemma Today: A Civilizational Shift or Self-destruction?

Factors such as ideologies, class struggle, economic growth, money, GDP, military force, national security, and many others are of paramount importance for historical development, but they do not make sense for social evolution. This mighty but blind power works only with mutations and time. The factors of historical development are transient and a prerequisite for mistaken decisions if they are taken into account by the ruling elite during transitional periods. For example, the class struggle is accepted by Historical Materialism as the main engine of the historical process, which is true, but the dictatorship of the proletariat made a bad joke on Communist ideology. For this reason, social evolution works only with the final product of historical development—*achieved level of social consciousness*. In evolutionary terms, human reason is manifested as social consciousness. In fact, social evolution is the evolution of social consciousness. The job of social evolution is to periodically “test” human reason and to what extent it complies with objective laws.

Social consciousness is a very complex phenomenon, but two components are of vital importance to comprehend how social evolution works in transitional periods—*social intelligence* and *morality*. For this reason, the development of social consciousness flows along two lines. Social intelligence generates knowledge and develops society; morality ensures its integrity. This resembles the positive and negative mutations known from biological evolution. Human reason develops *Homo sapiens* as a species, and morality ensures its survival. In the 10,000 years of the development of society, human reason creates everything from the spear to the spacecraft and artificial intelligence. This is the first line determined by the subjective factor and is accomplished by solving contradictions. The second line of social evolution periodically provokes qualitative changes to this development “testing”: to what extent human reason complies with the objective laws of social evolution. This is done by measuring changes in moral values—from the Ten Commandments, through the Christian values of faith, hope, and love to freedom, equality, and brotherhood. It is not difficult to notice that morality evolves from values relating to the individual (Old Testament) through values relating to communities (Christianity) to those pertaining to society as a whole (secular society). This line of evolution goes in parallel with the well-known three stages of spiritual development—polytheism, monotheism and secular society. Theoretically, we can assume that the next level of moral values will relate to the survival of society as a whole.

Unfortunately, at the beginning of the 20th century, with the emergence of socio-engineering models for the organisation of society—communism and fascism, morality and financialism began to decline, and this deterioration is visible with the naked eye. The moral values of civil society—*freedom, equality and brotherhood*—were replaced with *greed, egoism, and hypocrisy*. These and a number of other negative characteristics of the governing elite, such as love of power, selfishness, demagoguery and narcissism, can be defined by the generic term “arrogance”. Arrogance is a deformation; power predetermines the mentality of the ruling elite and the price that politicians pay for the privilege to govern. Arrogance is a factor opposed to human reason. In this way the social intelligence represented by society and morality as a feature of the ruling elite during the 20th century collided due to lack of

self-regulating feedback. In fact, in all artificially created models for a reorganization of society, the clash between social intelligence of society and the declining moral of governing elite is visible. As mentioned above, accelerated development of artificial models of social organization like communism, fascism and financism pushes society in the wrong direction, which leads to the decline in morality in the ruling elite. In this way the scientific and technological achievements of communism and Nazism go together with the notorious labour and concentration camps. The financism today generates global problems and leads to hybrid war, chaos, terrorism and poses a real threat of self-destruction. This peculiarity of social-engineering projects is one of the most important differences in comparison with formations created by social evolution.

It seems that scientific and technological achievements lead to delusion in the governing elite who accept their own decisions as political wisdom and as a result, they become more arrogant. Today the collision between social intelligence which generates knowledge in an unprecedented quantity changing the world beyond recognition, and the decline in morality in the governing elite—greed, corruption, selfishness, arrogance, and narcissism—is clearly visible. Moral decline is comparable to the metastasis of malignant cancer, which leads the body to complete destruction when the body dies together with the cancer. There is also a policy to deliberately destruct moral values of a society with the aim to manipulate public opinion easily. Such a policy is a crime against humanity because it destroys the very fabric of society that protects its integrity and survival. Paradoxically, the attempt of the ruling elite to destruct morality leads to an acceleration of the collapse of the elite itself and the governed system.

Today, modern society is very close to its destruction. According to the Doomsday Clock which represents the likelihood of a man-made global catastrophe, maintained by the Atomic Scientists, in 2017 the end was only 2 “minutes to midnight” or to the extinction of humanity.* The global problems and the Doomsday Clock are evident of: a) how destructive financism is; b) how helpless the subjective factor is to govern such a complex system like modern society, and c) how close mankind is to its end. Because of this reason, at the beginning of the 21st century, mankind faces one terrible dilemma—a civilizational shift or self-destruction.

If human reason prevails in this clash, social consciousness will grow into *social self-consciousness* and become the basis for the future society. A general idea of social self-consciousness gives us a comparison with the emergence of self-awareness in individual development. For the individual, this is the transition from puberty to adulthood. The question is, will the human reason or social intelligence be able to make such a transition at the social level, that is to survive and continue its development as a qualitatively different society or will it perish?

If society reaches the level of its maturity by establishing social self-consciousness, the civilizational shift will create a completely different type of society. Certainly, it will affect all three basic subsystems of society. A part of these changes will be caused by the objective factor, others—by the subjective factor, represented by the collaborative intelligence. The more important changes imposed by the objective factor or the laws of social evolution are:

* *Bulletin of the Atomic Scientists* <https://thebulletin.org/doomsday-clock/>.

emergence of social self-consciousness; transition to a new structure-forming factor or form of exploitation of natural resources to the exploitation of collaborative intelligence; transition from a hierarchy to network; transition from dominance of legal consciousness to domination of moral principles and norms.

The expected changes and prerogatives of subjective factors relating to the economy are: separation of the power of money from political power; the transition of the economy from an industrial to an ecological form, or from a money-based to the knowledge-based economy. Changes in the spiritual realm relate to the imposition of moral values to the values that led to the survival of humanity as a whole. Current governance will grow to self-governance, which means a change from the monopoly of the institutionalized elite into a decision-making mechanism by the collaborative intelligence. This mechanism will be based on moral values and can be achieved through creating collaborative networks resembling a virtual brain & global mind or the transition from democracy to collabocracy. Hence, this society can be defined as “collaborative”. As a result of such changes, significant demographic changes associated with the increasing role of intelligence and the limited role of money can be expected. In other words, financism, which is nowadays governed by the subjective factor, *will be turned into a self-organizing system*, in which human reason and objective laws will operate according to their natural functions.

The bottleneck of modern society is decision-making mechanisms presented by the ruling elite, regional unions, military alliances, which lead to political polarization. To be more precise—the outdated mentality, biased ideology and declined morality of the ruling elite. If this mentality prevails, society will be destroyed. In such a case, there are two scenarios related to the above-mentioned two lines of development. The scenarios are easily predictable because they are not a precedent.

The first scenario is presented by the objective laws or this mysterious and blind force called social evolution. Opposing polar models, which dominate geopolitics today, will exacerbate global problems and some of them will trigger ecological disaster and destroy mankind. In case this happens, it means that in its evolution human reason has created its negation in the face of the global governing elite, whose morality is expressed in greed, selfishness, hypocrisy, arrogance, demagoguery, narcissism, etc. This morality turns out to be a *more powerful evolutionary factor* in comparison with human reason. Therefore, human reason is incompatible with the laws of evolution. Homo sapiens would have been extinct like thousands of other species.

The second scenario relates to the decisions made by the ruling elite. In such a case there are two options—the ruling elite may initiate “a small nuclear war” to demonstrate its own military power, which will spread quickly as continental and global. This scenario is being seen since the First World War. Alternatively, the governing elite can decide to start a “lightning war” with the same motifs known from the Second World War. Regardless of the chosen option, the result remains the same—the Doomsday Clock will hit midnight. Six months later, when the ruling elite emerge from their atomic hideout, they will be astonished to comprehend that the world has been turned into radioactive ash. Enjoying their Pyrrhic

victory over the Human Reason, the Arrogance of the ruling elite will pass away slowly and painfully. This moment will be the end of history and the last man.

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Notes

1. David Owen, *The Hubris Syndrome, Bush, Blair and the Intoxication of Power* (London: Methuen, 2007).
2. Robert Waite, *The Psychopathic God: Adolph Hitler* (New York: Da Capo Press, 1993)
3. George Victor, *Hitler: The Pathology of Evil* (New York: Potomac Books Inc., 2007)
4. Waite, *The Psychopathic God*
5. Victor, *Hitler*
6. Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997) http://www.takeoverworld.info/Grand_Chessboard.pdf
7. Brzezinski, *The Grand Chessboard*
8. Gene Sharp, *Politics of Nonviolent Action, Part Two: The Methods of Nonviolent Action* (Boston: Porter Sargent Publishers, 1973).
9. Francis Fukuyama, *The End of History and the Last Man* (London: Free Press, 1992).
10. Dimitar Tchurovsky, "Collabocracy—Collaborative Intelligence and Governance of Globalised Society," *Eruditio* 2, no.1(2015): 64-67 <http://eruditio.worldacademy.org/volume-2/issue-1/article/collabocracy-collaborative-intelligence-and-governance-globalised-society>
11. Per Bak and Kan Chen, "Self-Organized Criticality," *Scientific American* 264, no. 1(1991):46-53
12. D. Tchurovsky, The New Paradigm of Social Evolution: Modern Society between Hope and Tragedy *Cadmus* 2, no.4 (2015): 184-195 <http://cadmusjournal.org/article/volume-2/issue-4-part-3/new-paradigm-social-evolution-modern-society-between-hope-and-tragedy>
13. Bill Joy, "Why the future doesn't need us," *Wired* April 2000 <http://www.wired.com/wired/archive/8.04/joy.html>

Ten Essential Ideas for Sustainability Leaders in the 2020s

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Abstract

This Discussion Outline was prepared for the WAAS-organized March 17, 2019, Special Meeting on Global Leadership for the 21st Century—Ideas That Can Lead to Action, which followed the VII Global Baku Forum, March 14-16. Its statements are derived from or supported by the contents of The Security & Sustainability Guide (www.securesustain.org; in development) and include current and emerging ideas deserving more attention from leaders: 1) we cannot have security without sustainability, and vice versa; 2) security is worsening worldwide, making sustainability more vulnerable; 3) still, an under-appreciated transformation to sustainability is underway; 4) but fragmentation within the transformation is widespread; 5) the intensifying global information explosion is out of control; 6) global population in 2050 will likely grow by 30% to 10 billion people; 7) a new political continuum is needed to supplement traditional “left-right” thinking; 8) a new economics for the 21st century is needed to supplement and eventually replace industrial-era economics; 9) new sources of non-polluting energy and new foods and food production methods are emerging; 10) the climate change problem is understated, but climate is only part of a wider set of urgent environmental problems.

The 21st century is already a time of complex and intensifying turmoil. Drivers are the consequences of new technology, accelerating climate change, a global environmental emergency, rising and spreading inequality, unprepared and incompetent governance, and the absence of appropriate institutional capacity to respond.

The **S&SG** profiles 40 leaders who have promoted thinking and/or action about security and sustainability issues in recent decades. Many of these leaders are still addressing the overlapping and interconnected challenges that we face. But progress is slow and uneven, and some issues, such as democracy and human rights, are clearly in retreat. Many more leaders are needed to step up and join what needs to be a global campaign to improve and sustain evidence-based discourse for humanity’s well-being, and to pioneer new ways to do so.

The following statements express several ways and means that the new leaders who do step up can choose from, based on personal and professional strengths, to make a significant contribution.

1. Acknowledge a fundamental fact. ***We cannot have security without sustainability, nor sustainability without security.*** Too few national and international leaders and opinion-makers see this connection to promote steady progress on global wicked problems such as climate change—a powerful multiplier of the damaging effects of other problems—and cyber-insecurity, where governments only now are beginning to consider laws and policies to cope. Sustainability can be better advanced if seen as a matter of global *and* national security. And security can be better achieved when climate change and other sustainability concerns are included in a broader framework that also includes cybersecurity.
2. Address grim realities. ***Security, in all its forms, is worsening worldwide, which means that sustainability is becoming more vulnerable.*** The major powers (the United States, China, and Russia, but especially the US), are clearly engaged in arms racing, which all three deny. Trillions of dollars being spent and planned to be spent on nuclear upgrading, other arms, and military infrastructure displace funding for increasingly urgent actions to deal with climate change and inequality. Nationalistic unilateralism, a fading commitment to multilateralism, a UN paralyzed by outdated structures and processes badly in need of reform, and the political and financial power of the multinational arms industry all impede any serious debate to slow and stop the arms race, focus on humanity’s needs, and consider the most cost-effective ways to promote real security. To cite a recent *New York Times* editorial (11 Feb 2019), “No Winner in a New Arms Race.”
3. Progress is being made that should be built on. ***An under-appreciated transformation to sustainability is underway.*** Several thousand organizations—including international NGOs, research institutes, government agencies, foundations, investors, and national militaries—are increasingly concerned with climate change, energy resilience, food security, conflict, threats to human rights and democracy, and/or serious damage to biodiversity and oceans. Notably, many businesses are “going green” to various degrees, prodded by green business groups, ethical groups, public opinion, organizations urging new accounting procedures, new accreditation schemes, green consultants, and proliferation of green investing opportunities. See, “Greening Capitalism, Quietly: Seven Types of Organizations Driving the Necessary Revolution,” (CADMUS, 3:2, May 2017, 150-166), **Better Business, Better World** from the Business and Sustainable Development Commission (2017, 122p), and the annual **State of Green Business Report** from GreenBiz. Capitalism can and should be usefully seen as bi-furcating into organizations pursuing the “triple bottom line” of People, Planet, and Profit to some degree, vs. traditional business focused only on the bottom line.
4. But, ***Fragmentation within the transformation is widespread, even embedded.*** Many organizations ignore the existence and work of others, some viscerally committed to defending their turf. This regrettable situation is amplified by the number and the variety of terms for the many overlapping goals of sustainable development (which may not even refer to the current UN flagship list—the 17 Sustainable Development Goals): low-carbon society, deep decarbonization, circular economies, green growth, no-growth, transformation, Global Green Deal, Green New Deal, green economy, new

climate economy, and others. Similarities and differences between these goals need to be examined, and a global guide to transformation objectives, action agendas, various cost estimates, and other related information can illuminate and reduce this fragmentation.

5. ***The intensifying global information explosion is out of control.*** The information environment has changed beyond recognition in just three decades, and the emerging Internet of Things will further the ever-growing array of entertainment and useful information. Every day, more people use more non-stop media to produce more information: some true, some false; some of profound importance but most arguably trivial and distracting. Good news for security and sustainability does exist: many of the organizations engaged in the transformation offer free online reports that are authoritative, handsomely produced, and amply documented. The bad news is that most of these reports are unknown, ignored by much of academia, the media, businesses, and competing “S&S” organizations. To cut through the clutter, frequently updated “Top Ten” or “Top 20” lists are needed to prioritize our thinking (see **Scientists Reporting: Top 20 Recent Online Reports on the Global Environmental Emergency to be published in the October '19 issue of *Cadmus***).
6. Barring nuclear war or pandemics, ***Global population in 2050 is likely to have grown by 30%, from 7.6 billion today to 10 billion.*** This is not the population “bomb” widely feared—and scoffed at—some 50 years ago, but growth must not be ignored or pooh-poohed. Fertility rates are declining, but so are mortality rates as medicine and health improve. An extra 2.4 billion people will surely add to planetary stresses and consumption of resources. In addition, and already clearly underway, the space for humanity to live and work in the absence of fear and want is declining due to coastal flooding, drought, desertification, and contamination by military and civilian activities. The recent IPBES report on land (See Scientists Reporting) notes that degradation “is negatively impacting the well-being of at least 3.2 billion people.” As climate change continues, human displacement will increase, provoking many more millions to seek better ‘space’, even though they are often unwelcome or even barred by more and more right-wing, nationalistic governments. A global population and migration strategy is urgently needed, more than ever. Reaching widespread consensus on this issue will test all of us.
7. ***A New Political Continuum is needed to supplement traditional “Left-Right” thinking.*** Science-based thinking in the public interest, which focuses on the “needed,” “the tested,” and the “good,” should be contrasted with authoritarian, corrupt, plutocratic, simplistic, willfully ignorant “Gangster Governments” that favor special interests and keep inept leaders in power. There will still be a need for debate between left and right about the “how” and “how much” of government intervention in society and the economy to reduce growing inequality and promote well-being. But good governance must be derived from the flood of evidence-based books, reports, papers, essays, and blogs issued by academics, researchers, and activists. The climate deniers of the fossil fuel industry (oil, gas, and especially coal), the big polluters (mining, chemicals, and big agriculture, especially meat producers), and the Security Industrial Complex of

well-funded arms producers, must all be constantly exposed for their distorted and self-interested views and actions that do not serve the public interest or majority desires.

“New economics’ will arrive and endure only with wider cooperation among dissident economists, and an effective strategy to promote the value of nature’s services, calculating costs of pollution, alternative measures to GNP, the role of social capital, and costs and benefits of plausible climate policies.”

8. ***A New Economics for the 21st century is needed to supplement and eventually replace industrial-era economics.*** The economics profession is yet another embedded interest group that refuses to consider appropriate measures such as the Genuine Progress Indicator or the Index of Sustainable Economic Welfare that give a more accurate picture of well-being. WAAS has sponsored a wide-ranging New Economics Working Group (see *CADMUS*, May 2017, pp10-44), but it lacks a strategy that focuses on actionable options or differentiates itself from several dozen other ‘new economics’ groups. For the most part, all the groups ignore the others, unless one of them openly criticizes their procedures and output. ‘New economics’ will arrive and endure only with wider cooperation among dissident economists, and an effective strategy to promote the value of nature’s services, calculating costs of pollution, alternative measures to GNP, the role of social capital, and costs and benefits of plausible climate policies. The need for an appropriate 21st century economics is perhaps best articulated by **An Introduction to Ecological Economics** by Robert Costanza, Herman Daly, and five others (CRC Press, 2nd edition, 2015, 337p).
9. ***New sources of non-polluting energy and new foods and food production methods are emerging.*** All have offsetting effects, but most are still preferable on a cost/benefit basis. Solar panels and onshore and offshore wind farms (and better battery systems for storing this energy) are increasingly competing for attention with hydrogen and other fuel cells, algae and other biofuels, wave and tidal systems, nuclear fusion, low-energy nuclear reactors (LENR), and small nuclear reactors (SNR) as options for displacing coal, oil, and natural gas. None are easy or cost-free to establish, whether due to politics, public opinion, vested energy interests, space limitations, or interference with established activities. A level playing field is needed so all options can fairly compete. New foods such as meat replacements based on vegetables, large-scale provision of foods from insects and/or seaweed, organic agriculture, and produce sourced in vertical farms or mobile mini-farms, face challenges of scale and embedded public tastes. Protocols for dealing with the contradictions provoked by new and different energy and food forms have yet to be established.
10. Climate change is certainly a major problem, and reducing and capturing carbon emissions is a major and widely-articulated response. All well and good, but ***the climate change***

problem is understated, and climate is only part of a wider set of urgent environmental problems. The climate outlook is consistently downplayed by omitting estimates of methane from thawing Arctic ice and tundra. As warned by Cambridge physicist Peter Wadhams, “a major climate warming boost from methane is inevitable” (**A Farewell to Ice**, 2017) and he calculates extra temperature rise due to methane alone by 2040 at 0.6 °C. Does this make tackling climate change hopeless? Not necessarily, but still greater urgency should underlie climate prescriptions. Even if substantial progress is made in slowing climate change (forget “solving”), other major environmental issues must also be addressed. This was articulated ten years ago by the “planetary boundaries” concept of Johan Rockström *et al.*, but the concept is not easily conveyed and has not been picked up. Recent major science reports on global risks, land degradation, biodiversity loss, changing oceans, accelerating Arctic ice melt, threats to public health, and feeding 10 billion people strongly reinforce the planetary boundaries overview, all too briefly presented in the SRC/CoR **Transformation is Feasible** report mentioned below.

“Everyone seeks to be “original” and educational institutions insist on it, to the neglect of integration and outreach to bridge ever-growing fragmentation.”

In sum, “Innovation,” arguably the most hyped solution to almost every problem, needs a reset for a problematic world. **Less narrow innovation is needed and more cooperative aggregation, coupled with more outreach efforts in a crowded infoworld.** Everyone seeks to be “original” and educational institutions insist on it, to the neglect of integration and outreach to bridge ever-growing fragmentation. Despite the glut of books and online reports on security and sustainability topics, progress is problematic.

Strategic foresight is valuable, demonstrated by the recent report by the Stockholm Resilience Centre to the Club of Rome. **Transformation is Feasible: How to Achieve the Sustainable Development Goals within Planetary Boundaries** (Oct 2018, 58p) analyzes four future scenarios in depth: Same, Faster, Harder, and Smarter. But how many people have heard of this inspiring report, let alone read it? And how many are moved to action? Online publishing alone is insufficient. For starters, more op-ed essays, spin-off articles, and regular appearances on TV talk shows are needed.

There are probably many more “essential ideas” to prepare for and shape the coming decades. But before gathering them, time might be better spent on improving expression of the ten statements above, and identifying the interconnections and overlaps among them. No problem is an ‘island’. And no problem can be “solved” and forgotten. Indeed, even making significant progress on any of today’s problems, is likely to create new problems. We should not abandon hope, but the emerging world problematique demands more realism and resolve.

Bibliographic Note

Tomorrow's new leaders can benefit from reading books by two very different authors.

The Art of Leading Collectively: Co-Creating a Sustainable, Socially Just Future by Petra Kuenkel (Chelsea Green, 2016, 290p. Foreword by Ernst Ulrich von Weizsäcker) argues for changing the traditional leadership paradigm focused on individuals, to building the capacity of groups to move issues of common concern—collective leadership for sustainability, or what David Harries calls “leadingship.” (Reviewed in *Eruditio*, 2:2, July-August 2016; www.worldacademy.org)

A very different approach to leadership, addressed to political leaders and “all who are worried about the future of humanity,” is provided by Israeli political scientist Yechezkel Dror's **For Rulers: Priming Political Leaders for Saving Humanity from Itself** (Westphalia Press/Policy Studies Organization, Aug 2017, 103p), which focuses largely on “the cascading power of science and technology” for better or worse, as regards robots, nuclear war, human enhancements, climate change, etc. This “urgent memo” (reviewed in *CADMUS*, 3:3, Oct 2017, 169-171) is an updated and far shorter version of the near-encyclopedic **Avant-Garde Politician: Leaders for a New Epoch** (Westphalia Press, 2014, 350p; reviewed in *CADMUS*, 2:3, Oct 2014, 170-179).

IMPORTANT NOTE: Due to space considerations in this issue, publication of the companion essay, “Scientists Reporting: Top 20 Recent Online Reports on the Global Environmental Emergency,” has been postponed until the Fall 2019 issue of *CADMUS*. The “Top 20” reports are organized in five categories: Climate, Health, and Energy; Land and Seas; Food, Water, and Biodiversity; Agendas for Action; and Overviews. They represent the collective efforts of IPCC, IEA, IPBES, IUCN, NOAA, WRI, UNESCO, WWF, UNEP, CoR, etc., and amply illustrate “Essential Ideas” #9 and especially #10. A pre-publication draft can be requested from mmarien@twcny.rr.com.

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Some “New” Governance Models for Europe and the United States

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Abstract

We live in an age where populism, as both a totalitarian and a Manichean political attitude, is becoming more established on both sides of the Atlantic. An age, also, in which there is a proliferation of democratic innovations attempting to address the issues of the 21st century and the crises in representation and delegation. The question of public confidence in institutions is key, but it is based, first and foremost, on the way in which these issues should be resolved and, therefore, on the mechanisms that allow this to happen. In this respect, questioning governance in terms of its relationship with law, as the World Bank and the World Academy of Art & Science are doing, makes sense, particularly in as turbulent a context as the one we live in today. In addressing some “new” governance models for Europe and the United States, we will first review the definition of the concept and the organisation of its models in three spheres. We will then move on to examine the six mutations which have influenced and developed this model, before turning our attention to a 21st century form of governance, as advocated by the Committee of Experts on Public Administration in the United Nations Economic and Social Council which, during its 2018 session, proposed a form of governance for Agenda 2030. The conclusion stresses the need for rationality and organisation in democracy.

We live in an age where populism, as both a totalitarian and a Manichean political attitude,* is becoming more established on both sides of the Atlantic. An age, also, in which there is a proliferation of democratic innovations attempting to address the issues of the 21st century and the crises in representation and delegation. The question of public confidence in institutions is key, but it is based, first and foremost, on the way in which these issues should be resolved and, therefore, on the mechanisms that allow this to happen. In this respect, questioning governance in terms of its relationship with law, as the World Bank and the World Academy of Art and Science are doing, makes sense, particularly in as turbulent a context as the one we live in today.† It seems that each piece of data, each reality, each fact

* As Emiliano GROSSMAN and Nicolas SAUGER note in *Pourquoi détestons-nous autant nos politiques?*, p. 71-72, Paris, Presses de Sciences Po, 2017, *populism is, if we accept the contemporary definitions of the term (including Cas MUDDE, *Populist Radical Right Parties in Europe*, Cambridge, Cambridge University Press, 2007.), first and foremost a partial ideology (in that it does not offer a full and comprehensive explanation of the world), built around two principles: total separation between the people and the elite (the people being good, the elite being corrupt), and subjection of politics to the general will. In other words, populism is based on a negation of pluralism (the people are a homogeneous whole) and a form of Manichaeism (the people are good, the elite are evil). Our translation. - See also Colin HAY, *Why we hate politics*, Cambridge, Polity Press, 2007.*

† This text is an updated version of the author's speech at the “Round table on Governance & Law: Challenges & Opportunities” held at the World Bank in Washington, an initiative of the World Academy of Art and Science and the World University Consortium, on 5 and 6 November, 2018.

and each change is doubted, challenged or even disputed. Individualism and the restricted thought communities in which some people seem to isolate themselves permanently prohibit any critical dialogue, permitting instead all forms of intellectual or cybernetic manipulation. Memory fades and the horizon becomes more limited, rendering any view fundamentally myopic. In an age of fake news,* combined with superficial perspectives, all information, and also all knowledge, seem fragile and shifting. Yet, as historian and Yale professor Timothy Snyder rightly pointed out, *if there is no truth, there can be no trust, and nothing new appears in a human vacuum.*¹

The democratic innovations are clearly here to fill this vacuum, by restoring meaning to collective action in which the involvement of each individual is recognised by empowering citizens and politicians. The Destree Institute's Wallonia Policy Lab—the Brussels Area Node for the Millennium Project—has been involved in these innovations in conjunction with the Parliament of Wallonia, based on an experiment which was launched in 1994 and which ended in 2017 and 2018, with citizens' panels held within the parliamentary precinct itself, in dialogue with deputies and ministers. We are dealing here with the processes highlighted by Professor Archon Fung[†] that he calls “empowered deliberation” or “empowered participatory governance”, which enable officials and citizens to address and resolve complex and volatile governance issues jointly.²

In addressing some “new” governance models for Europe and the United States, we will first review the definition of the concept and the organisation of its models in three spheres. We will then move on to examine the six mutations which have influenced and developed this model, before turning our attention to a 21st century form of governance, as advocated by the Committee of Experts on Public Administration in the United Nations Economic and Social Council which, during its 2018 session, proposed a new form of governance for Agenda 2030.

1. The Governance Models

Behind the concept of governance, as we will use it here, lies an old idea reflecting the political science of social administration, and a more modern concept, stemming from the end of the 1980s, which represents an effort to reinvent a management model through dynamic organisation of the actors and stakeholders. This model has a history, which we will not elaborate on here, but which has its roots in the process of decolonisation and advancement of human rights and in the efforts, particularly by the United Nations and related institutions, to shape new countries or even a new world.[‡]

1.1. Towards a Definition of the Concept of Governance

In 1991, in a Report by the Council of the Club of Rome entitled *The First Global Revolution*, Alexander King (1909-2007) and Bertrand Schneider (born in 1929) use the term

* Although the historian recalls that rumours are not specific to the information society or the knowledge society. See François-Bernard HUYGHE, *La désinformation, les armes du faux*, Paris, A. Colin, 2016. – Fake News, *la Grande Peur*; 2018.

† Archon Fung is Professor of Citizenship and Governance at the Kennedy School of Government at Harvard University.

‡ See *inter alia* Louis EMMERIJ, Richard JOLLY, Thomas G. WEISS, *Ahead of the Curve?, UN Ideas and Global Challenges*, New York – Geneva, UN-Indiana University Press, 2001. – id., *En avance sur leur temps?, Les idées des Nations Unies face aux défis mondiaux*, p. 229sv., Blonay, Van Diermen – ADECO – Geneva, United Nations, 2003. – Thomas G. WEISS, *Governance, Good Governance, and Global Governance: Conceptual and Actual Challenges*, *Third World Quarterly* 21, no 5, October 2000, p. 795-814.

“governance” to denote the command mechanism of a social system (and its actions), which endeavours to provide security, prosperity, coherence, order and continuity to the system. This concept necessarily embraces the ideology of the system, which may (democratic) or may not (authoritarian) define the means for the effective consideration of the public will and the accountability of those authorities. It also includes the structure of the government, its policies and its procedures. Some might even say that governance is the means to provide a stable equilibrium between the various centres of power.*

“Good governance has many attributes. It is participatory, transparent and accountable. It is effective in making the best use of resources and is equitable.” – UNDP

The British successor to Aurelio Peccei as President of the Club of Rome, and the French Secretary General of that organisation which was founded in 1968, note that the concept of governance, in the broadest sense, should not be reserved for national or international systems but should be used for regional, provincial and local governments and for other social systems such as education, defence, private enterprise and even the family microcosm.³ Thus, governance includes the government and also *any actor who uses the command mechanisms to articulate demand, formulate objectives, disseminate guidelines and monitor policies*.⁴ As the political scientist and futurist James Rosenau (1924-2011) indicates, in this fragmented world of ours, all these many and varied actors are of no less importance in the governance process than government policies. However, Rosenau, a former professor at George Washington University, qualifies the idea of “command mechanism” found in the Club of Rome’s definition, preferring instead the concept of “control or steering mechanism”, which brings the concept closer to its etymological origin.[†]

Steven Rosell, a Canadian researcher at the Institute for Research on Public Policy who was himself inspired by the works of the American diplomat and professor Harlan Cleveland (1918-2000),[‡] offers a definition of governance that takes into account these aspects: *the process of governance is the process whereby an organization or a society steers itself, and the dynamics of communication and control are central to that process. While the role of government is and remains central to the process of governance, in the information society more and more players, voluntary organisations, interest groups, the private sector, the media and so on—become involved in that process*.⁵

* Alexander KING & Bertrand SCHNEIDER, *The First Global Revolution*, p. 114, New York-Hyderabad, Pantheon Books - Orient Longman, 1991. It should be noted that, in the French translation of this report, which was prepared by Jacques Fontaine and published in Paris in 1991, the term ‘governance’ is translated as “structures de gouvernement [structures of government]”, thus indicating that its use in France is not yet widespread. A. KING & B. SCHNEIDER, *Questions de survie, La Révolution mondiale a commencé*, p. 163, Paris, Calmann-Lévy, 1991.

† “Governance” is derived from the Greek *kybenan* or *kybernetes* (as in cybernetics), which means to steer or control. J.N. ROSENAU, *Along...*, p. 146.

‡ Harlan Cleveland, former United States’ Ambassador to NATO and former President of the World Academy of Art and Science, had himself used the term since the 1970s. *The organizations that get things done will no longer be hierarchical pyramids with most of the real control at the top. They will be systems—interlaced webs of tension in which control is loose, power diffused, and centers of decision plural. “Decision-making” will become an increasingly intricate process of multilateral brokerage both inside and outside the organization which thinks it has the responsibility for making, or at least announcing, the decision. Because organizations will be horizontal, the way they are governed is likely to be more collegial, consensual, and consultative. The bigger the problems to be tackled, the more real power is diffused and the larger the number of persons who can exercise it — if they work at it.* Harlan CLEVELAND, *The Future Executive: A Guide for Tomorrow’s Managers*, p. 13, New York, Harper & Row, 1972.

The United Nations Development Programme (UNDP) has set for itself the goal of advocating for change and connecting countries to knowledge, experience and resources that help people build a better life. In its second annual report, in 1991, the UNDP suggests that underdevelopment originates from a lack of political accountability rather than a lack of funding. Since 1992, the term “governance”, combined with the democratisation of State management, has appeared in the *Global Report on Human Development*^{*}. The UNDP, which was a co-author, defined good governance as *the exercise of political, economic and administrative authority in the management of a country’s affairs at all levels. Governance comprises the complex mechanisms, processes and institutions through which citizens and groups articulate their interests, mediate their differences and exercise their legal rights and obligations. Good governance has many attributes. It is participatory, transparent and accountable. It is effective in making the best use of resources and is equitable. And it promotes the rule of law.*[†]

We are aware of the World Bank’s role in disseminating the concept of “good governance” as a public management model—developing accounting control to tackle corruption, building legal frameworks to promote the establishment of international free enterprise, a mechanism for decentralising services, etc.[‡] The Washington Institute for Near East Policy was also at the forefront in terms of defining institutional governance:

We define governance broadly as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them.[§]

* UNDP and governance, *Experiences and Lessons Learned*, UNDP, Management Development and Governance, Lessons-Learned, Series, no 1, p. 9, <http://magnet.undp.org/docs/gov/Lessons1.htm> 17/02/01 Richard Jolly, Director General of Unicef, special advisor to the UNDP Administrator and the driving force behind the Human Development Report, and the conference entitled *Good governance and democratisation: the role of the international organisations*, Ottawa, United Nations Association in Canada (UNA-Canada), 16 and 17 October, 1997. *Une nouvelle gouvernance mondiale au service de l’humanité et de l’équité, dans Rapports mondial sur le développement humain* 1999, p. 97-123, New-York, UNDP Paris-Brussels, De Boeck-Larcier, 1999.

† G. Shabbir CHEEMA, *Politique et gouvernance du PNUD: cadre conceptuel et coopération au développement*, <http://www.unac.org/français/activites/gouvernance/partieun.html> 17/02/02. Shabbir CHEEMA directeur de la Division du Renforcement de la Gestion et de la Gouvernance au PNUD. – Another definition given by the UNDP is that of Public Sector Management, which dates back to 1995: *governance or public management encompasses the direct and indirect management by the state of public affairs and regulatory control of private activities that impinge on human affairs. Governance can best be understood in terms of three major components: first, the form of political authority that exists in a country (parliamentary or presidential, civilian or military, and autocratic or democratic); second, the means through which authority is exercised in the management of economic and social resources; and third, the ability of governments to discharge government functions effectively, efficiently, and equitably through the design, formulation, and implementation of sound policies.* dans *Public Sector Management, Governance, and Sustainable Human Development, Discussion Paper 1*, Management Development and Governance Division, Bureau for Policy and Programme Support, p. 19, New-York, United Nations Development Programme, 1995. In 1997, a new study by the Management Development & Governance Division, prefaced by G. Shabbir Cheema, gave a very similar definition to the one presented in Ottawa: *Governance can be seen as the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.* In *Governance for sustainable human development, A UNDP policy document*, p. 3, New-York, United Nations Development Programme, 1997.

‡ See, for example: J. ISHAM, Daniel KAUFMANN & Lant PRITCHETT, *Governance and Returns on Investment*, Washington, The World Bank, 1995. – *Global Economic Prospects and the Developing Countries*, Washington, The World Bank, 1996. – Francis NG and Alexander YEATS, *Good Governance and Trade Policy. Are They the Keys to Africa’s Global Integration and Growth?* Washington, The World Bank, 10 November 1998. – Michael WOOLCOCK, *Globalization, Governance and Civil Society*, DECRG Policy Research on Globalization, Growth, and Poverty: Facts, Fears, and Agenda for Action, Background Paper, Washington, The World Bank, 10 August 2001.

§ *We define governance broadly as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them.* Daniel KAUFMANN, Aart KRAAY & Pablo ZOIDO-LOBATON, *Governance Matters*, Washington, World Bank, 1999. <http://www.worldbank.org/wbi/governance>. 16/02/02. Daniel KAUFMANN, Aart KRAAY & Pablo ZOIDO-LOBATON, *Gestion des Affaires publiques, De l’évaluation à l’action, dans Finances et Développement*, June 2000, p. 1.

We see the operational side of this definition for the World Bank, a definition which also includes a range of indicators that help to explain these various aspects of governance.⁶

Other definitions have been developed over time, including those of the European Commission, the OECD and various countries. In its *White Paper* in 2001, the European Commission indicates that *governance means rules, processes and behaviour that affect the way in which they are exercised at the European level, particularly as regards openness, participation, accountability, effectiveness and coherence.**

As the political scientists have demonstrated, governance is a descriptive label used to highlight the changing nature of the political process over the past few decades. This concept alerts us to the ever-increasing diversity of areas and actors involved in the development of public policies. It takes into account all the actors and areas outside the executive framework of the policy development process.⁷ The key element in both understanding and promoting governance is probably the notion of *stakeholders* of the particular policy or issue, which turns such parties into potential actors.⁸ Whether they are engaged in action or in campaigning, it is through such involvement that actors find the legitimacy of participating in the governance of the defined territory. As for the public sector, such involvement may offer it a new opportunity to rethink its role and, consequently, a new vitality.⁹

Lester Salamon, a professor at Johns Hopkins University, has highlighted the new governance paradigm by demonstrating the transition between, on the one hand, traditional public administration based on programmes, agencies, hierarchy, public-private sector antagonism, command and control mechanisms and skills-based management, and, on the other, governance based on new tools, network logic, a constructive relationship between the public and private sectors, negotiation and persuasion and development of skills.¹⁰

This comparison is consistent with others, particularly between the Weberian Bureaucratic State and the Postmodern State, between government and governance, as explored by Richards and Smith in 2002 and developed by Michael Hill.¹¹

1.2. The Three Spheres of Governance

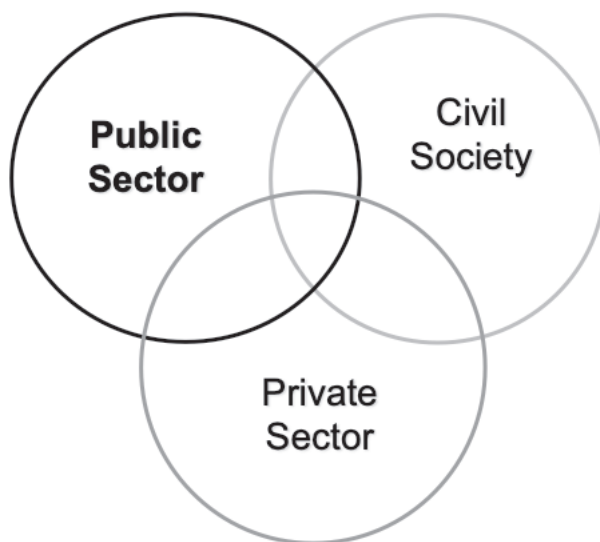
The UNDP model structures the State, the private sector and civil society as three spheres of governance based on a specific division of tasks.

- The role of the State and its three powers—legislative, judiciary and executive (*public services and the military*)—is to create a political and legal environment and climate conducive to human development by defending interests for the public good. It is the State’s responsibility to ensure law enforcement, maintain order and security, create a *national identity and vision*, define public policies and programmes, generate revenues for public services and infrastructures, create and implement its budget and regulate and stimulate the market.
- The private sector which, from the smallest business to the largest, grows within the market, creates and provides goods and services, along with jobs and revenues for

* *Governance means rules, processes and behavior that affect the way in which they are exercised at the European level, particularly as regards openness, participation, accountability, effectiveness and coherence. European Governance, A White Paper, July 25, 2001, p. 8.*

citizens. This commercial sector is not linked to a specific territory, yet it is an element of regional development.

Figure 1: Three Spheres of Governance



Civil society, which comprises all citizens, who may be organised through non-governmental organisations, professional organisations, religious associations, women's associations, cultural or community associations, etc., facilitates political and social interaction, particularly by mobilising groups of citizens to participate in economic, social and political activities and *express a range of dynamic and varied opinions*.*

Although it makes the system easier to understand, this arrangement of the three spheres of governance does not diminish the complexity of the system. Thus, it reveals the following seven types of relationships which remain common:

- the relationship between governments and markets;
- the relationship between governments and citizens;
- the relationship between governments and the voluntary or private sectors;
- the relationship between (elected) politicians and (appointed) civil servants;

* G. Shabbir CHEEMA, *Politique et gouvernance du PNUD: cadre conceptuel et coopération au développement...*, p. 10. – *Governance includes the state, but transcends it by taking in the private sector and civil society. All three are critical for sustaining human development. The state creates a conducive political and legal environment. The private sector generates jobs and income. And civil society facilitates political and social interaction, mobilising groups to participate in economic, social and political activities. Because each has weaknesses and strengths, a major objective of our support for good governance is to promote constructive interaction among all three. Governance for Sustainable Human Development, A UNDP Policy Document, United Nations Development Programme, January 1997.*

- the relationship between local government institutions and residents in towns and rural areas;
- the relationship between the legislative and the executive;
- the relationship between the Nation-State and international institutions.¹²

In its analysis, the UNDP points out that none of the three spheres is solely responsible for good governance and cannot own it solely by itself. Good governance extends beyond the functions of each sphere and is the main topic during meetings and interactions. As G. Shabbir Cheema, Former Director of Democratic Governance Division of the UNDP, writes, it is first and foremost a question of promoting interaction between these three spheres. The actors involved at the point where the State, the private sector and civil society meet are the keys to governance.¹³

Thus, from the experience of international cooperation, globalisation and economic interdependence, it is possible to derive this approach to governance, which can be seen as a process of coordinating actors, social groups and institutions that produce compromises and political and social consensus on achieving specific goals—which are discussed and defined collectively—in fragmented and uncertain environments. This view of the concept clearly addresses the issue of the State’s role in the organisation of society. Although it radically alters the nature of the relationship between citizens and the State, the governance model cannot replace the function of government. We are dealing here with a complementary approach, which involves the decision-makers and increases their expectation of collective action by relying on the other pillars of society.

We can see this in the convergence between the various definitions of the concept of governance and the issue of the position of civil society, while the capacity of civil society to enter into a global dialogue with the political sphere is central to the revitalisation of democracy and the rehabilitation of politics. The key element in both understanding and promoting governance is probably the notion of *stakeholders* of the particular policy or issue, which turns such parties into potential actors. It is through their action or campaigning that actors find the legitimacy of participating in the political and social arena. As for the public sector, and particularly the government, such involvement may offer it a new opportunity to rethink its role and, consequently, a new vitality.¹⁴ Indeed, politics retains its rightful place in the new model. Its own, new political vision leads it into the heart of the system, as a facilitator and organiser of the debate and of the decisions being taken between actors. In this respect, it appears to be *the mastermind*, like the State.¹⁵

2. Six Mutations that Influence Governance

At a particular moment in history—in the early 1990s—a search for a new equilibrium was launched between market, political and civil society actors. It may be that the third of these served to complement the first two, to try and correct the excessive pendulum swing caused by the neoliberal deregulation introduced by Reaganism and Thatcherism. Economic and civil society actors have also been able to join forces in developing countries to maintain

cohesion mismanaged by discredited regimes, and have therefore been parties at the international level. The same geopolitical causes that put an end to the bipolarity of the world clearly had an effect on ideologies. Their erosion, and even their partial or total discrediting, no doubt contributed to the development or consolidation of the individualist vision that marks the supremacy of personal sovereignty over state sovereignty and reconnects with the philosophers of the Age of Enlightenment and the social contract. Individualism, a philosophy in which the individual is not created for the State, but rather the State is created for the individual, is emerging as a significant trend in contemporary society.

“Social media is producing a multitude of new tools for building communities and promoting a more deliberative and more participatory democracy, even if its harmful effects cannot be denied.”

In parallel, and faced with increased globalisation, the key players are operating increasingly at the international level and are, themselves, structuring the political and social arena.¹⁶ The European Union is a good example of a public actor, as are multinational businesses and organisations such as Google, Uber, Greenpeace and the Millennium Project.

We wanted to highlight at least six mutations that influence governance, before examining how they influence our model: (1) the Knowledge Revolution (2) the transition to sustainable development, (3) the new social trifunctionality, (4) open government, (5) the conservative and populist zeitgeist, and (6) the increasing influence of businesses.

2.1. The Knowledge Revolution

There is no need to dwell on this mutation, except to point out that it is a single trajectory which originates in the Information Revolution of the 1970s, the communication highways, the cognitive revolution, the knowledge society, the digital revolution, the internet, the genome, robotics, artificial intelligence, etc.: all these transformations, these waves of technological and societal innovations, stem from the same dynamic. This structure of structural change leads us collectively towards something else whose magnitude we have barely perceived. One of the major results is clearly the higher levels of education among citizens and the significant increase in the number of intellectuals, defined as individuals who are engaged in critical thought, supported by research and reflection on society, and who offer solutions to address its normative problems. Unlike the far too negative perception people have of it, social media is a source of training and education for many. The internet, meanwhile, contains a considerable amount of information and knowledge which helps to train citizens. Social media is producing a multitude of new tools for building communities and promoting a more deliberative and more participatory democracy, even if its harmful effects cannot be denied. As early as 1974, in *The Coming of Post-industrial Society*, the sociologist Daniel Bell dedicated a chapter to this key question: *who will lead?*¹⁷

2.2. The Transition to Sustainable Development

This transition, which also began at the end of the 1960s with increasing awareness of the limits imposed on growth, grew too slowly through the various reports produced by the United Nations, scientists, NGOs of all kinds, political parties, States and, now, businesses. Nearly all accepted the notion that sustainable development is a systemic dynamic and a quest for harmony, as advocated in the Brundtland Report in 1987. The implementation of Agenda 2030 and the 17 Sustainable Development Goals (SDGs) adopted by heads of states and governments at the Special United Nations Summit on 25 September 2015, shares this systemic aspect and takes into account the critical need to save the planet and the urgency of climate change,* highlighted further in the IPCC report of October 2018.†

“An open government can be conceived as a citizen-centred culture of governance that utilises innovative and sustainable tools, policies and practices to promote government transparency, responsiveness and accountability to foster stakeholders’ participation in support of democracy and inclusive growth.”

2.3. The New Social Trifunctionality

It was the anthropologist and religious historian Georges Dumézil (1898-1986) who showed, through his work on ancient myths, how societies of Indo-European origin organise human activity based on a trifunctional approach. He consistently describes three functions in the societies studied. These are exercised as separate, hierarchical powers: a religion and sovereignty function, a military function and a production and reproduction function.¹⁸ Thus, after the Aristotelian model,¹⁹ we note the feudal system model with its three orders, described by the historian Georges Duby (1919-1996), which is based on the work of Adalbéron, bishop of Laon (1027-1030),²⁰ and the French Ancien Régime model with its three states, conceived by René Rémond (1918-2007)²¹ but previously described by the legal scholar Charles Loyseau (1566-1627) at the beginning of the 17th century. The governance model currently in force is a continuation of this trifunctionality, but it has the particular characteristic of seeking, as we have seen, a balance between stakeholders rather than a restrictive leadership of one party over the others.

As with all of Dumézil’s analysis, each of the models has been criticised. Take, for example, the well-known issues raised by Abbé Sieyès (1748-1836)²² or by Karl Marx (1818-1883) and Friedrich Engels (1820-1895).‡ The model of governance by stakeholders has also been criticised and will be criticised again and again. It has also been described as a new form of corporatism, which clearly evokes some highly charged images.

* *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October, 2015. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

† *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments*, 8 October 2018. <https://www.ipcc.ch/sr15/>

‡ K. Marx & F. Engels, *Manifesto of The Communist Party* (1847).

2.4. Open Government

Taking its inspiration from the works of the OGP (*Open Government Partnership*) and the OECD, an open government can be conceived as a citizen-centred culture of governance that utilises innovative and sustainable tools, policies and practices to promote government transparency, responsiveness and accountability to foster stakeholders' participation in support of democracy and inclusive growth.* This process is intended to lead to the co-construction of collective policies that involve all governance players (public sector, businesses, civil society, etc.) and pursue the general interest and the common good. Such initiatives have been taken by leaders said to be above politics, such as Tony Blair, Barack Obama and Emmanuel Macron, and are continuing, particularly in the action plans developed under the guidance of the OGP, such as the UK-NAP: *3rd OGP National Action Plan*.†

2.5. The Conservative and Populist Zeitgeist

Whether you like him as a person or not, former British Prime Minister Tony Blair, in his speech to the TUC (Trade Union Congress) in Brighton on 12 September 2006, perfectly captured the unease felt at that time by citizens and politicians, an unease which was still in its infancy but which would continue to grow until today. The quality of this analysis deserves a lengthy quotation.

“What has changed is the interplay between globalisation, immigration and terrorism. Suddenly we feel under threat: physically from this new terrorism that is coming onto our streets, culturally as new waves of migrants change our society, and economically because an open world economy is hastening the sharpness of competition. People feel they are working longer, but are less secure. They feel the rules are changing and they never voted to change them. They feel, in a word, powerless. This is producing a pessimism that is pervasive and fearful because there seems no way through, or at least a way under our control.

There is a debate going on which, confusingly for the politicians, often crosses traditional left/right lines and the debate is: open vs closed. Do we embrace the challenge of more open societies or build defences against it? In my judgement, we need an approach that is strong and not scared that addresses people's anxieties but does not indulge them, and above all has the right values underpinning it. The challenge won't be overcome by policy alone, but by a powerful case made on the basis of values, most especially those that combine liberty with justice, security with tolerance and respect for others. We have to escape the tyranny of the “or” and develop the inclusive nature of the “and”.

* OECD, *Open Government, The Global context and the way forward*, p. 19, Paris, OECD Publishing, 2016. In November 2017, the OECD published this work in French, with the following definition: *a culture of governance that is based on innovative, sustainable policies and practices inspired by principles of transparency, accountability and participation to promote democracy and inclusive growth*. OECD, *Gouvernement ouvert: Contexte mondial et perspectives*, Editions OECD, Paris. 2017. <http://dx.doi.org/10.1787/9789264280984-fr>

† Policy paper, *UK Open Government National Action Plan 2016-18*, 12 May 2016. <https://www.gov.uk/government/publications/uk-open-government-national-action-plan-2016-18/uk-open-government-national-action-plan-2016-18>

The answer to economic globalisation is open markets and strong welfare and public service systems, particularly those like education, which equip people for change. The answer to terrorism is measures on security and tackling its underlying causes.

*The answer to concern over migration is to welcome its contribution and put a system of rules in place to control it.**

“The adoption and implementation of the SDGs since 2015 represent a tangible acceleration of the transition towards sustainable development and the prospect of a new generation of governance.”

And Tony Blair goes on to condemn economic protectionism, isolation and nativism, the political current of opposing any new immigration:

Protectionism in the economy; isolation in world affairs; nativism within our society; all, in the end, mean weakness in the face of challenge. If we believe in ourselves, we can be strong. We can overcome the challenge of global change; better, we can relish its possibilities.†

The opposite of this open concept is clearly populism, which we mentioned at the outset. In June 2017, Anthony Zurcher, the BBC News correspondent in the United States, described this attitude and its consequences: challenging the legitimacy of elected representatives, distrusting the parliamentary system, criticising the media and a financial oligarchy that seems to run the world, along with challenging scientific evidence, particularly by maintaining a sense of confusion over certain issues: the case analysed was typical: *Does Trump still think climate change is a hoax?*²³

2.6. The Growing Influence of Businesses

The growing influence of businesses is a clearly visible reality. There is little doubt that the role of businesses is better recognised in society and that their impact on governance has increased at the global and the local level. In June 2014, alluding to integrated governance, a new governance model for sustainability, the United Nations Environment Programme observed that *companies have been the engine behind the unprecedented economic growth of the past century. The big companies through their operations have managed to raise billions of people from poverty, provide employment and education opportunities, and unlock the human potential for innovation and creativity.*[‡]

* Full Text of Tony Blair’s Speech to the TUC (Trade Union Congress), Brighton, Sept. 12, 2006. in *The Guardian*, 12 Sep. 2006. <https://www.theguardian.com/politics/2006/sep/12/tradeunions.speeches>

† *Ibidem.*

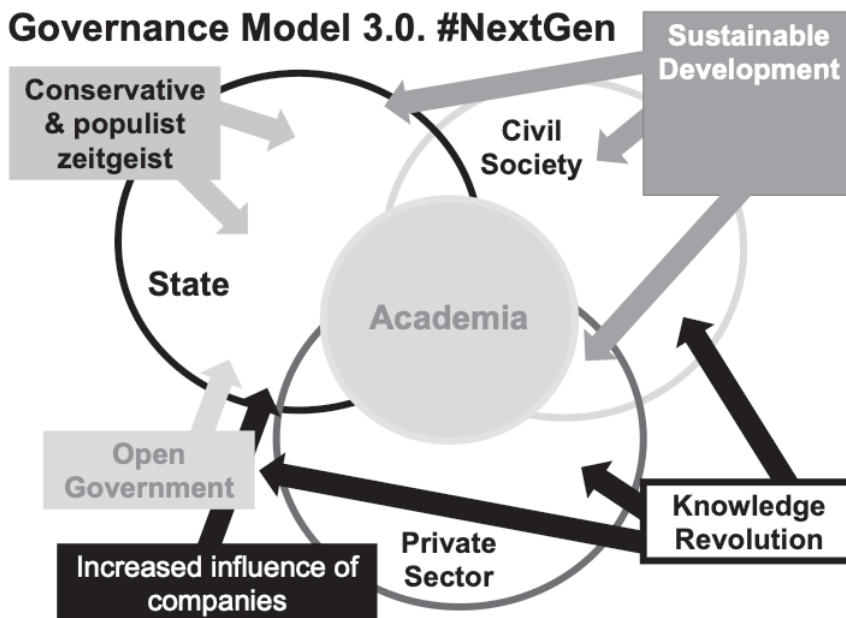
‡ *Companies have been the engine behind the unprecedented economic growth of the past century. The big companies through their operations have managed to raise billions of people from poverty, provide employment and education opportunities and unlock the human potential for innovation and creativity. Integrated Governance, A New Model of Governance for Sustainability*, p. 8, United Nations Environment Programme, June 2014.

If we analyse the UNDP’s ‘three spheres of governance’ model, we can already see that, in what we call the first generation (*Governance Model 1.0. #1st Gen*), from the 1980s to the middle of the 2000s, the influence of the Knowledge Revolution was already being strongly exercised over the private sector and civil society. The transition towards sustainable development was recognised mainly within civil society, whereas the social trifunctionality model was disseminated in the public sector through international institutions.

It seems that this pattern has evolved since the middle of the 2000s towards a second-generation governance model (*Governance Model 2.0. #2nd Gen*) in which sustainable development is widespread throughout all levels of the public sphere to the point of becoming the official norm. The effects of the Intelligence Revolution have continued to be felt everywhere, but they are especially extensive in the public sector, particularly through the open government movement, and particularly under the influence of Barack Obama, starting from his first term in 2009. But in a world in which knowledge is valued, a new sphere is emerging out of the world of research and universities (Academia). This represents an interface, being both autonomous and a meeting and activation point for the private, public and civil society spheres, particularly through its capacity to activate collective intelligence and its academic freedom. This new sphere is challenging the social trifunctionality model.

It could be argued that the adoption and implementation of the SDGs since 2015 represent a tangible acceleration of the transition towards sustainable development and the prospect of a new generation of governance (*Governance Model 3.0. #NextGen*).

Figure 2: Governance Model 3.0 #NextGen



The growing influence of businesses may, in this key area of the SDGs which are the primary focus of their societal responsibility, provide valuable support, especially since awareness of sustainability in the business world has increased considerably and the resources available to public “authorities” are effectively eroded. Nevertheless, the conservative and populist zeitgeist which is disrupting the public sector and civil society may have some annoying effects, namely blocking or confusing the information and communication flows.

The impacts of the six mutations in progress on actors of governance are summarised in table 1.

Table 1: The impacts of the six mutations in progress on actors of governance

Six Mutations in Progress	Impacts on the actors of governance			
	State	Civil Society	Private Sector	Academia
Knowledge Revolution	Need for foresight and anticipation	Knowledge Number of Intellectuals	Networks Innovations	Emergence as a governance circle
Sustainable Development	Evaluation. Leaving no one behind.	Fiscal Sustainability	High Sustainability Firms	Emergence CEPA 17 th p. 15
New Social Trifunctionality	Weakening Aligning interests	Corporate Social Responsibility	Recognition of the importance	Quadri-functionality Leadership?
Open Government	Moving to collective pol. Multilevel Gv.	New models Collective Intelligence	New way of working Engagement	Innovations Status of expertise?
Conservative & populist Zeitgeist	Authoritarianism Liberticidal	Confusion Handling	Freedom to oppress? Instability	Mistrust
Increasing Influence of Companies	Budgetary Performance Transparent Reporting	Mistrust vs. New partnerships	Awareness & commitment facing issues	Mistrust vs. New partnerships

3. Governance for Agenda 2030

The United Nations Committee of Experts in Public Administration (CEPA), set up by the Economic and Social Council (ECOSOC) in 2001, is composed of 24 members who meet every year at the UN headquarters in New York. The Committee supports the work of ECOSOC to promote the development of effective public administration and quality governance among Member States, particularly in the context of Agenda 2030, in support of the implementation and evaluation of progress in achieving the Sustainable Development Goals. CEPA updates ECOSOC on the various aspects of governance and public administration of sustainable

socio-economic development. Its particular focus is on topics relating to development of human capital, participatory governance, development of skills in countries experiencing crises or emerging from conflict, and on the various innovations in public administration and governance.

At its 17th session, which was held in New York in April 2018, CEPA worked on the subject of preparing public institutions for the implementation of the SDGs (*Making public institutions ready for implementation of the SDGs*). CEPA put forward recommendations on three issues it considered fundamental: firstly, preparing institutions and politicians with a view to ensuring the implementation of the Sustainable Development Programme by 2030, then the implementation, at all levels, of efficient, responsible institutions that are open to anybody, and, finally, measures aimed at strengthening the institutions and giving them the necessary resources to transform societies and make them viable and resilient. Based on its earlier work, CEPA created a set of principles of effective governance to support the urgent and total achievement of the Sustainable Development Goals.

3.1. Effectiveness

3.1.1. Competence: *to perform their functions effectively, institutions are to have sufficient expertise, resources and tools to deal adequately with the mandates under their authority* (commonly used strategies include: promotion of a professional public sector workforce, leadership development and training civil servants, financial management and control, investment in e-government, etc.).

3.1.2. Sound Policymaking: *to achieve their intended results, public policies are to be coherent with one another and founded on true or well-established grounds, in full accordance with fact, reason and good sense* (commonly used strategies include: strategic planning and foresight, strengthening national statistical systems, risk management frameworks, data sharing, etc.).

3.1.3. Collaboration: *to address problems of common interest, institutions at all levels of government and in all sectors should work together and jointly with non-State actors towards the same end, purpose and effect* (commonly used strategies include: centre of government coordination under the Head of State of Government, collaboration, coordination, integration and dialogue across levels of government and functional areas, raising awareness of the SDGs, network-based governance, multi-stakeholder partnerships, etc.).

3.2. Accountability

3.2.1. Integrity: *to serve in the public interest, civil servants are to discharge their official duties honestly, fairly and in a manner consistent with soundness of moral principles* (commonly used strategies include: promotion of anti-corruption policies, practices and bodies, codes of conduct for public officials, elimination of bribery and trading in influence, conflict of interest policies, whistle-blower protection, provision of adequate remuneration and equitable pay scales for public servants, etc.).

3.2.2. Transparency: *to ensure accountability and enable public scrutiny, institutions are to be open and candid in the execution of their functions and promote access to information,*

subject only to the specific and limited exceptions as are provided by law (commonly used strategies include: proactive disclosure of information, budget transparency, open government data, registries of beneficial ownership, lobby registries, etc.).

“To ensure that all human beings can fulfil their potential in dignity and equality, public policies are to take into account the needs and aspirations of all segments of society.”

3.2.3. Independent oversight: *to retain trust in government, oversight agencies are to act according to strictly professional considerations unaffected by others* (commonly used strategies include: promotion of the independence of regulatory agencies, arrangements for a review of administrative decisions by courts or other bodies, independent audit, respect for legality, etc.).

3.3. Inclusiveness

3.3.1. Leaving no one behind: *to ensure that all human beings can fulfil their potential in dignity and equality, public policies and to take into account the needs and aspirations of all segments of society, including the poorest and most vulnerable and those subject to discrimination* (commonly used strategies include: promotion of equitable fiscal and monetary policy, promotion of social equity, data disaggregation, systematic follow-up and review, etc.).

3.3.2. Non-discrimination: *to respect, protect and promote human rights and fundamental freedom for all, access to public service is to be provided on general terms of equality, without distinction of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, disability or other status* (commonly used strategies include: promotion of public sector workforce diversity, prohibition of discrimination in public service delivery, multilingual service delivery, accessibility standards, cultural audit of institutions, universal birth registration, gender-responsive budgeting, etc.).

3.3.3. Participation: *to have an effective State, all significant political groups should be actively involved in matters that directly affect them and have a chance to influence policy* (commonly used strategies include: free and fair elections, regulatory process of public consultation, multi-stakeholder forums, participatory budgeting, community-driven development, etc.).

3.3.4. Subsidiarity: *to promote a government that is responsive to the needs and aspirations of all people, central authorities should perform only those tasks which cannot be performed effectively at a more intermediate or local level* (commonly used strategies include: fiscal federalism, strengthening urban governance, strengthening municipal finance and local finance systems, enhancement of local capacity for prevention, adaptation and mitigation of external shocks, multilevel governance, etc.).

3.3.5. Intergenerational Equity: *to promote prosperity and quality of life for all, institutions should construct administrative acts that balance the short-term needs of today's generation with the longer-term needs of future generations* (commonly used strategies include: sustainable development impact assessment, long-term public debt management, long-term territorial planning and spatial development, ecosystem management, etc.).*

“To achieve harmony, democracy requires rationality and organizational methodology from citizens and politicians. Education and training are fundamentally what sustain them on a daily basis.”

These principles of effective governance, drawn by the UN CEPA to support the urgent and total achievement of the Sustainable Development Goals, are a genuine roadmap from which all actors in governance must be able to draw inspiration. Not only administrations and associations, as we have seen, but also citizens, businesses and researchers. Not only will the implementation of these principles contribute to increasing sustainable development and help it to achieve its goals by 2030, they may also improve our world and our societies, here and now.

4. Conclusion: Rationality and Organization in Democracy

The governance models highlighted in the paper have not been advocated only for Europe and the United States. They are recommended for the entire world, and these models are enriched considerably by the work undertaken by major international institutions, associations and foundations. Naturally, these include the Club of Rome, the UNDP, the World Bank, the ECOSOC CEPA and the Open Government Partnership. There are others as well, such as the European Commission, the Council of Europe and the OECD.

The objective of these initiatives is, first and foremost, to improve democracy and governance. These cannot function without being organised through structured and often procedural dialogue between stakeholders. To achieve harmony, democracy requires rationality and organizational methodology[†] from citizens and politicians. Education and training are fundamentally what sustain them on a daily basis. This should never be forgotten.

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Notes

1. Timothy Snyder, *The Road to Unfreedom, Russia, Europe, America* (New York: Tim Duggan, 2018), 279.

* UN, *Committee of Experts on Public Administration, Report on the Seventeenth Session (23-27 April 2018)*, p. 18-21, New York, Economic and Social Council, Official Records, 2018, Supplement No 24. E/2018/44-E/C.16/2018/8.

† We are thinking, in particular, of issues relating to mutual adjustment in developing policies. See Philippe Zittoun, *La fabrique des politiques publiques. Une approche pragmatique de l'action publique*, p. 201sv, Paris, Presses de Science Po, 2013.

2. Archon Fung, “Democratizing the Policy Process,” in Michael Moran, Martin Rein & Robert E. Goodin, *The Oxford Handbook of Public Policy* (Oxford: Oxford University Press, 2008), 682. A. Fung, *Empowered Deliberation: Reinventing Urban Democracy* (Princeton, NJ: Princeton University Press, 2004).
3. A. King and B. Schneider, *The First Global Revolution: A Report of the Council of Rome*, 181-182.
4. James N. Rosenau & Ernst-Otto Czempiel eds., *Governance without Government: Order and Change in World Politics* (Cambridge: Cambridge University Press, 1992). J.N. Rosenau, *Along the Domestic Frontier, Exploring Governance in a Turbulent World* (Cambridge: Cambridge University Press, 1997), 145.
5. Steven A. Rosell, ed, *Governing in an Information Society* (Montréal: Institute for Research on Public Policy, 1992).
6. Daniel Kaufmann, Aart Kraay & Pablo Zoido-Lobaton, *Aggregating Governance Indicators* (Washington: World Bank, 1999). <http://www.worldbank.org/wbi/governance>. 16/02/2002.
7. David Richards & Martin Smith, *Governance and the Public Policy in the UK* (Oxford: Oxford University Press, 2002), 2.
8. *La société civile et l’OCDE*, in *Synthèses*, Paris, OECD, December 2001, p. 1.
9. Lester M. Salamon, “The Tools Approach and the New Governance: Conclusion and Implications,” in Lester M. Salamon, *The Tools of Government, A Guide to the New Governance* (New York: Oxford University Press, 2002), 600-610.
10. Salamon, *The Tools of Government*, 9.
11. David Richards & Martin J. Smith, *Governance and Public Policy in the UK* (Oxford: Oxford University Press, 2002), 36. - Michaël Hill, *The Public Policy Process* (Harlow: Pearson Education Limited, 2009), 21.
12. Sam Agere, *Promoting Good Governance, Principles, Practices and Perspectives* (London: Commonwealth Secretariat, Management and Training Services Division, 2000), 1.
13. Cheema, *Politique et gouvernance du PNUD*, 10.
14. “La société civile et l’OCDE,” in *Synthèses* (Paris: OECD, 2001), 1.
15. Philippe Delmas, *La maître des horloges, Modernité de l’action publique* (Paris: Odile Jacobs, 1991).
16. Hill, *The Public Policy Process*, 20.
17. Daniel Bell, *The Coming of Post-industrial Society* (London: Heinemann, 1974), 339.
18. Georges Dumézil, *Jupiter, Mars, Quirinus* (Paris: Gallimard, 1941).
19. Aristotle, *Ethique à Nicomaque* (Paris: Vrin, 1997), 43sv.
20. Georges Duby, *The Three Orders, Feudal Society Imagined* (Chicago: The University of Chicago Press, 1980).
21. René Remond, *L’Ancien Régime et la Révolution* (Paris: Seuil, 1974), 64sv.
22. Emmanuel Joseph Sieyès, *Qu’est-ce que le Tiers état?* (Paris: Editions du Boucher, 2002 [1789]).
23. Anthony Zurcher, “Does Trump still think climate change is a hoax?” *BBC News* June 2, 2017. <https://www.bbc.com/news/world-us-canada-40128034>

Toward a New Paradigm of World Governance

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Abstract

The article presents a critical analysis of the existing order of globalism, which imposes Western values and constructs on the human universe. This in turn leads to adverse results. It produces tensions, wars, conflicts and racial and cultural divides. Alternatively, this analysis puts together ideas from the Ancient Egyptian vision of world order and universal stability with contemporary experimental modes of governance, as represented by Egypt's post-revolution (2011-2013) model. The innovative kind of governance that the model embodies was born out of Egypt's historical identity, the national character of Egyptians, and the unique societal fabric of integrated diversity that rejects extremism and western-imposed models. This article also invokes some ideas on conceptualizations of governance from China, to propose an out-of-the-ordinary and a new paradigmatic path.

This article proposes a new paradigm of and for governance, nationally and globally. It is largely informed by analysis of the recent experiment in Egypt following the two-phase Revolution (2011-2013), in which a nonviolent popular movement by the people removed two Presidents, former President Mubarak and former President Morsi, within a period of two years. Removal of these Presidents, who were disapproved of by the majority of the population, was the central demand of the people. Millions remained in the streets, particularly in the central Tahrir Square in Cairo, until their demand was met.

In addition to ideas derived from Egypt's nascent experiment in governance, other ideas from various sources were integrated to provide a basis for formulating a new model of governance that combines the global, the national and the local. The paradigm integrates analytical criteria in a new way.

These and other ideas were recently presented at the roundtable held at the World Bank Headquarters, Washington, D.C., on 5-6, November, 2018.*

This Roundtable[†] was sponsored by the World Academy of Art & Science and the World University Consortium with the goal of exploring “the governance challenges and

* See <http://worldacademy.org/conferences/governance-law-de-nov-2018> The event was conducted in collaboration with The Millennium Project <http://www.millennium-project.org>, “which connects futurists around the world to improve global foresight.” It was founded in 1996 after a three-year feasibility study with the United Nations University, Smithsonian Institution, Futures Group International, and the American Council for the UNU. It is now an independent non-profit global participatory futures research think tank of futurists, scholars, business planners, and policy makers who work for international organizations, governments, corporations, NGOs, and universities. The Millennium Project manages a coherent and cumulative process that has been collecting and assessing judgments from over 3,500 people since the beginning of the project.

† The Roundtable stated that “[t]he rapid evolution of society continues to outpace the development of institutions to guide, monitor and manage the increasing range and magnitude of the opportunities and challenges that arise. The growing gap between the needs of humanity and its prevailing system of institutions severely retards our collective progress and threatens to undermine the developmental gains of the past half century and achievement of the ambitious goals set for in the SDGs.”

opportunities generated by the complex nexus of forces impacting on human aspirations for freedom and development, peace and security, employment and equality, technological advancement, access to education and information, immigration and multi-culturalism, ecological stability and security in rapidly globalizing society today.” *Special emphasis was on the effective rule of law, governance and public participation for achievement of the UN Sustainable Development Goals.*

“[The ancient vision] embraced a worldview that is an integrated whole, bringing specific elements together to weave a governing paradigm, one that is kinder to people and which invokes a balance, a wholesome worldview that inspires the population to live and work towards a promising future.”

Aspects of the proposed new paradigm developed in this article grew out of two specific presentations made at the Roundtable. Both sessions placed emphasis on the component of ‘people’ and participatory development and governance. This is precisely the element focused on for the proposed new paradigm.

1. Stability Versus Chaos

The notion of stability has been used and abused by different leaders. In the case of former President Mubarak who ‘reigned’ in Egypt for more than three decades, he declared himself President for Life and was preparing his son to become ‘heir’ in a Republic that overthrew its monarchy in a major Revolution in 1952. He was popularly ousted by the people in 2011. During his rule, Mubarak tried to give a benign face to ‘stability’, which in reality came down to brutal security clampdowns and excessive police force mounted against civilians with the goal of controlling the population. He saw this as producing stability—a form of stability that resorts to population control and exploitation of a nation’s resources for its own benefit; this is not the stability that people seek.

2. Chaos

In a recent publication (El Guindi, 2018), I described the Egyptian popular revolt in these terms: “people were fed-up of the 30-year rule by President Mubarak who installed himself as President for Life with his corrupt son as unelected ‘heir’, a reign of unprecedented corruption, poverty, and abuse of Egyptian resources. A close circle of Mubarak was getting very rich, the people were becoming poorer and poorer, institutions were gradually dismantled, rule of law was falling apart, there was open brutality by the police force (endorsed at the top), and so on.” (El Guindi, 1982; 1986; 1993).

* See my Op-Ed published in *The Los Angeles Times* El Guindi, F. 1993 “Mubarak Should Call an Election and Step Aside” which foresaw events of January 25, 2011

Keeping the population poor and controlled was former President Mubarak's vision of stability. It was clear to observers that Egyptians during that period had lost all freedoms and forms of self-expression. They were visibly depressed. Productivity was at its lowest. Corruption at all levels followed the model of the governing elite who openly exploited Egyptian resources. It ran deep and cut through all layers of society. Unskilled laborers would make a statement like: "I do business, import-export", while in fact being engaged in illegal economic transactions, bribery, drug trafficking, body organ trafficking, sex slavery, child abuse, etc. Actions seemed justified in light of the bigger violations by the government and the ruling elite. There were two kinds of theft: big theft and small theft. Working for a living became devalued. People did not get the money they wanted. Lower wage rates did not give them 'prestige'. Law and order were exploited against the people rather than being deployed for the general good of disciplined manners and transactions. If one can measure a nation's morale by its people's state of mind, this was a period in which Egyptians had very low self-esteem. It is different today. There is an emergent optimism and sense of renewal visible all over Egypt both in people's behavior and in the pace of change and development throughout the country.

"There is an urgent need to open our thoughts and hearts, without any kind of preconceived bias, to ideas and models that would work for the general well-being of our social world and our physical planet."

But this approach to 'stability', adopted by Mubarak, has been shown to be the wrong path to building nations and instilling confidence and self-esteem in people. The people thus reacted strongly. An alternative Egyptian way toward 'Stability' had emerged millennia ago during the time of state-building in ancient Egypt, and is re-emerging in contemporary form today. First, let us analyze the ancient vision. It embraced a worldview that is an integrated whole, bringing specific elements together to weave a governing paradigm, one that is kinder to people and which invokes a balance, a wholesome worldview that inspires the population to live and work towards a promising future.

3. Balance and Stability

By ancient Egyptian standards, today's world would be considered to be in a state 'ruled' by *Isfet*, that is, a state of chaos. There is discontent among populations in much of Europe and the United States. Questions are raised whether 'democracy' works for managing the domestic political landscape. Others question the legitimacy of unilateral actions by dominant countries destabilizing other countries (e.g. the Balkans, Iraq, Syria, Libya, and Yemen). Unilateral measures sanctioning nations subjectively considered to be "an enemy", thereby enforcing economic limitations that strangle livelihoods, are no more tolerated. Regime change, rebuilding and destabilizing nations along ethnic or sectarian fault lines are arrogant and should not be a feature of global cooperation. Challenging the authority of the global body of the United Nations and its subsidiaries to maintain order and mediate conflicts,

and the World Court to maintain justice has destabilized the World Order. Globalization has turned corporate capitalism into a savage beast devouring people's lives rather than serving populations and allowing them to achieve quality in their lives. Over and over again, corporate projects use people's fresh water for mercenary reasons (see the brave women of Bosnia), access to healthcare, access to education, safe food (El Guindi, 2014), etc. Bosnian women have been trying to save their fresh water in the face of corporate-funded, corporate-run dams which divert environmentally safe fresh water streams that are the basis of their livelihood away from local populations.

Eurocentric, often racist attitudes toward emergent nations run deep. There is an arrogance in judging other people's cultural traditions (El Guindi, 2006) and their religions (El Guindi, 1998; El Guindi, 2003; El Guindi, 2008) and other people's needs and territory (El Guindi, 2005), as inferior to those of Europe. There is also the ideological antagonism toward visions coming out of China. There is an urgent need to open our thoughts and hearts, without any kind of preconceived bias, to ideas and models that would work for the general well-being of our social world and our physical planet.

The recent and continuing events in Paris in November-December 2018, the *Gilets jaunes*, are clearly about economic discontent in a country that favored the rich with impunity, relieving them from taxes, while unequally and excessively taxing working people. The recent announcement in France of instituting a higher fuel tax was the trigger. Discontent already existed. The strong response by the people, and the ensuing violence in the streets of Paris, pressurized Le Président to backtrack and cancel the proposed fuel tax. It was too little, too late. The movement had started and could not be reduced to fuel tax.

Some observers used the analogy of a Band-Aid approach to reform to describe the attempt by Le Président Macron to quell the angry tide. The French President has been openly promoting 'globalism'. According to a news story by the Associated Press, "[L]ess than a month ago, French President Emmanuel Macron staked his claim as the flag-bearer for globalism. In a speech to 60 world leaders at the Arc de Triomphe, he eulogized the United Nations and declared nationalism the "betrayal" of patriotism. Recently, tear gas and cobblestones flew in the same part of Paris as protesters trashed the iconic monument and demanded that Macron's embattled government withdraw a proposed fuel-tax increase. For the first time in his presidency, he backed down."* Protests by the French people demanding social justice forced the President to propose some economic reforms: a government-funded 100-euro increase in the minimum wage starting at the beginning of the new year; the abolition of taxes on overtime pay in 2019; asking profit-making companies to give workers tax-free year-end bonuses; slashing a tax hike on small pensions, acknowledging it was "unjust."

I contend that globalism is insensitive to people and their needs. It cannot be adopted as a model of world governance. It is 'globalism' versus social justice. Associating globalism with liberal democracy is faulty to the core. But fixing the situation cannot be done properly by adding or removing elements while leaving the 'model' intact. It calls for a new paradigm.

* Sylvie Corbet and Angela Charlton, "Macron vows tax relief, urges calm in bid to quell protests" *Associated Press* December 10, 2018 <https://apnews.com/e3788b2dc7b14229be0eaadc7cc8b450>

The Ancient Egyptian worldview consists of a vision that integrates morality-justice-truth (the feather), with governance (the scepter), with nature-culture-gender-cosmology-animal life (ankh = life), in order to attain balance in the human order. It is with such a balance of forces that stability is achieved.

4. Today's Egypt

I summarize by using a graph, see figure 1, the model of governance followed in Egypt today, after the two-phase-Revolution (2009-2013), in an experiment that is now six years old. It integrates the global, the national and the local. It aims to place the human component at the center. It takes into consideration Egypt's historical, cultural and social context. The current new model developed by the present government can be referred to as a Globalized Nation-State model engaging in bilateral partnerships that is represented in Figure 1 as a radial graph linking the nation to the global world, and including local communities and the human factor through initiatives that emerge out of the needs of the people. In this model, the nation-state recognizes the global spheres (economic development and social media) and existing global institutions (such as the United Nations and the International Court. It seeks to empower, not weaken, global institutions which function as an oversight: mediation, peace, justice, protection of people and their heritage. Bilateral partnerships are marked by mutual interest and characterized by mutual respect.

Figure 1: A Graphical Analysis of Egypt's Current Experimental Model of Governance, Combining the Global, the Local, and the National with Human Factor as Central to Local Governance



5. What Would a New Paradigm in Global Governance Look Like?

It is instructive to consider the Chinese vision to Global Governance. Chinese President Xi Jinping recently reaffirmed China's "community of common destiny" as central to the future of the international order. This is based on the new book he published in October 2018 on the theme "community of common destiny for mankind" (Tobin, December 2018). Its *official* English translation is "community of shared future for mankind."

Observers might see this as indicative of Beijing's strategic intentions and China's approach to foreign policy issues as diverse as trade, climate change, cyber operations, and security cooperation.

Tobin clarifies: "The phrase expresses in a nutshell Beijing's long-term vision for transforming the international environment to make it compatible with China's governance model and emergence as a global leader." Chinese officials make it clear that the concept has become central to Beijing's foreign policy framework and overall national strategy.

Tobin goes on to argue that according to China's top diplomat, Yang Jiechi (August 2018), "[B]uilding a community of common destiny for mankind is the overall goal of China's foreign affairs work in the new era. The pathway for building the community, he noted, is the establishment of a "new type of international relations" that supports, rather than threatens, China's national rejuvenation and promotes the building of a community of common destiny." Xi did not coin the phrase (which was already used by his predecessor Hu Jintao), nor did he formulate its core tenets, but he succeeded in making it a hallmark of his diplomacy, which was recognized by Chinese state media that credited Xi with introducing it as a *global* concept in 2013 in Moscow, during his first international trip as President.

The aspirations expressed in this vision were voiced by Chinese leaders since the early days of the People's Republic. In 1954, Premier Zhou Enlai proposed in meetings with India the "Five Principles of Peaceful Coexistence": mutual respect for territorial integrity and sovereignty, mutual non-aggression, mutual non-interference in internal affairs, equality and cooperation, and peaceful coexistence. President Jiang Zemin's "new security concept" in the late 1990s echoed the Five Principles and rejected the "old security concept based on military alliances and build-up of armaments."

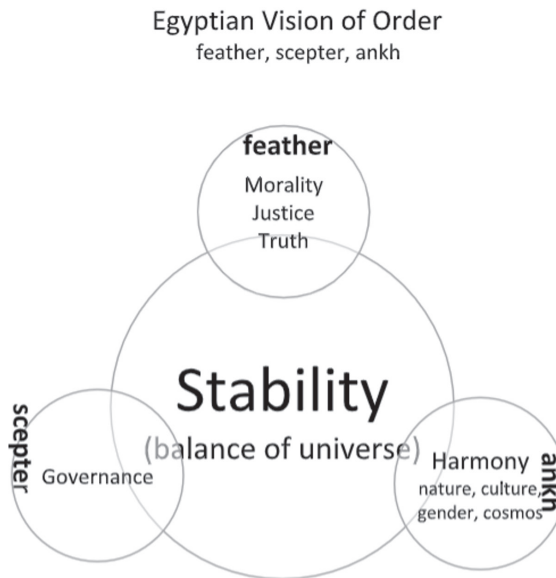
In a similar vein, President Hu proposed building a "harmonious world" in his 2005 speech to the United Nations. Hu affirmed his predecessors' concepts and called for reforms to give developing countries a greater voice in global governance. Each of these proposals reflects long-standing Chinese objections to features of the current international order, including US-led security alliances, military superpower, and democratic norms.

China's Xi, however, has gone beyond his predecessors to promote his vision of transforming global governance. For Xi, China's growing comprehensive national power means that Beijing has greater ability—and faces a greater urgency—to achieve its long-held aspirations. In June 2018, (at a Central Foreign Affairs Work Conference), Xi called for China to "take an active part in leading the reform of the global governance system." Previously, he and his predecessors had more modestly called for China to "actively participate" in global

governance reforms. Xi linked his exhortation to his vision of building a community of common destiny.

Taking into consideration the difference in scale, Egypt is also experimenting with a non-ideological vision that builds on its millennia-old worldview, adapted to modern times and its geopolitical position in the global world. Egyptian President Sisi summarized Egypt’s vision at the United Nations in 2018. It prioritizes security over terrorism which is in fact a diminishing but still existing threat to Egypt’s very existence and its people’s security and safety. Figure 2 is a graphical representation of Egypt’s contemporary experimental model of governance.

Figure 2: A Graphical Representation of Egypt’s Contemporary Experimental Model of Governance



But the security achieved by building a strong army and navy is not the whole story. Egypt states among its principles the integration between national strength, building on a very strong Egyptian identity among its population, sustainable development, focusing on the human element, global market and investment, thus linking in its model the national, global and the local. It remains active in the global world and market through what I describe to be ‘radial, bilateral partnerships’ rather than military coalitions. Its vision is more modest than China’s, although the element of harmony must be considered seriously. Egypt states that it seeks to protect its national sovereignty without ambitions of violating the sovereignty of others. Its defense is there to protect it from terrorism and its threat against the security and stability of its population, thus enabling its people to move onto a pathway of sustainable development. It is contributing to the reform of the global governance system without seeking

popularity. It promotes the global tools of peace and conflict mediation, such as international court and the United Nations, by strengthening them and respecting their role and resolutions.

“We do not need to ‘patch up’ a globalist model of governance, nor accept the unchallenged dominant trope of liberal democracy versus dictatorship, but we need to rethink with fresh ideas as to how we can bring about a new paradigm in governance.”

China might have more ambitious goals, but its success or failure in achieving its vision remains to be seen. Any new paradigm must include equal accessibility of the following human rights to all people: right to adequate health service, right to education, right to safety and security, right to employment, right to nutritious food, right to participate in governance and services, right to secure cultural heritage. These rights must be considered inalienable and must respect cultural uniqueness and integrity. These proposed human rights should be fundamental to a reconsideration of the Declaration of Universal Human Rights.

But regardless of the ultimate outcome of Egypt’s vision, a new paradigm that includes the concerns and identities of the emerging nations of the non-western world is now on the table for the world to consider. We do not need to ‘patch up’ a globalist model of governance, nor accept the unchallenged dominant trope of liberal democracy versus dictatorship, but we need to rethink with fresh ideas as to how we can bring about a new paradigm in governance.

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Bibliography

1. El Guindi, F. 1982 The Killing of Sadat And After: A Current Assessment of Egypt’s Islamic Movement. 2(5):20-27 (1982). *Middle East Insight* 2(5):20-27.
2. 1986 The Mood in Egypt: Summer Heat or Revolution? *Middle East Insight* 4(4 & 5):30-39.
3. 1993 Mubarak Should Call an Election and Step Aside. *In Los Angeles Times*. Los Angeles.
4. 1998 UN Should Act to Protect Muslim Women. *In Newsday*. Pp. A29.
5. 2003 Nobel Choice Send Message to American Feminists. *In Pacific News Service*
6. 2005 Confronting Hegemony, Resisting Occupation. *In Resisting Racism and Xenophobia: Global Perspectives on Race, Gender, and Human Rights*. F.V. Harrison, ed. Pp. 251-268. Walnut Creek, California: Altamira Press.
7. 2006 “Had This Been Your Face, Would You Leave It as?” Female Circumcision Among the Nubians of Egypt. *In Female Circumcision: Multicultural Perspectives*. R.M. Abusharaf, ed. Pp. 27-46. Philadelphia: University of Pennsylvania Press.
8. 2008 By Noon Prayer: *The Rhythm of Islam*. Oxford: Berg Publishers.
9. 2014 People, Social Groups, Cultural Practices: From Venn Diagrams to Alternative Paradigms for Sustainable Development. *In Sustainable Development: An Introduction Focusing on the Gulf Region*. P. Sillitoe, ed. Pp. 460-480. Oxford: Berghahn Publishers.
10. 2018 Revisiting ‘The Arab Spring’. *Eruditio*: e-Journal of the World Academy of Art & Science 2. (5)
11. 2018 Tobin, Liza Xi’s Vision for Transforming Global Governance: A Strategic Challenge for Washington and Its Allies *Texas National Security Review* 2(1).

System Change Investing and the Sustainable Development Goals

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Abstract

The UN Sustainable Development Goals (SDGs) are one of the most important milestones of the sustainability movement. Broad embrace of the goals by companies and governments shows growing awareness of the need to effectively address major environmental, social and economic problems. In his 2019 letter to CEOs, Larry Fink, CEO of Blackrock, the world's largest asset manager (\$6 trillion in assets), said that companies should expand their purpose from narrowly benefiting shareholders to broadly benefiting society. Over 8,000 companies are striving to do this by voluntarily adopting a B-Corp (Benefit Corporation) structure that seeks to benefit all stakeholders. Voluntary efforts such as these provide many benefits, but cannot come close to achieving the SDGs. Economic and political systems often place shareholders before all other stakeholders and do not hold companies fully responsible for negative environmental and social impacts. These systems compel all companies to degrade the environment and society. They are the root causes of the environmental, social and economic problems addressed by the SDGs. System change is the most important action needed to achieve the goals. This article provides a big picture view of system change and discusses practical options for achieving it. System Change Investing (SCI), a high-leverage, short-term system change strategy, is emphasized.

1. The Big Picture

The big picture has space and time dimensions. A space or geographic perspective shows that the economy is a sub-element of human society, which is a sub-element of the whole Earth system. This system includes immutable physical and nonphysical laws of nature, such as equality. A big picture time perspective shows that all human systems which violate the laws of nature change, usually by collapsing.

This perspective also shows similarities between past and modern systems. To illustrate, current economic and political systems are similar to slave-owning societies in ways that are not obvious without this higher perspective. Plantation owners in the early southern US, for example, grew up in a society where slavery was broadly accepted and promoted. Many slave owners saw themselves as good people who treated their family, friends, neighbors and sometimes slaves well.

Preachers assured them that slavery was divinely ordained. Their sense of self-worth often was tied to their slaves and other property holdings. Slave owners who tried to free their

slaves or treat them more kindly frequently were criticized and pressured to conform with current systems. Voices opposing slavery increasingly were heard in the southern US. But slave owners were supported by their families, communities and society. Rationalizations and close-mindedness often were used to block out dissenting voices.

During a typical conversation, one might have heard slave owners discussing good deals at slave markets or the most effective ways to punish runaway slaves. If people today could go back in time and hear these conversations, nearly everyone would be horrified. Many would exclaim, you're insane! I don't even know where to begin to explain how wrong you are.

The same situation exists today. Nearly all future people will look back in horror at many of our actions and systems. This is not obvious to most people for many of the same reasons that the horrors of slavery often were not obvious in the early southern US (except to slaves).

People grow up in current economic and political systems. Their lives frequently depend on them. Benefits of current systems are taught in school and heavily promoted. Business and political leaders usually are admired by their families, friends and communities. Young people often strive to emulate them. Like many slave owners, modern business and political leaders are good people who frequently believe they are doing God's will. They strongly intend to benefit, not harm society.

And yet like slave owners, they are unintentionally causing massive harm. Humans are taking far more resources from nature than it can sustainably provide, and dumping far more waste into nature than it can sustainably process. This has placed every major environmental life support system in rapid decline, with some regional exceptions.

Inappropriate government influence enables those at the top of society to unfairly concentrate public wealth. Sixty-three people own as much wealth as the bottom 50 percent of humanity (3.8 billion people). Forty-three percent of citizens in the US cannot afford to meet basic needs. Billions of people suffer and struggle to survive while a small group at the top has far more wealth than they could reasonably spend.

Media and vested interest deception divides people and prevents them from working together on their many common interests, such as protecting life support systems and using the public wealth to equally and fairly benefit all citizens. Experts have been raising awareness about environmental and social degradation for over 20 years. But business and political leaders who attempt to address these problems often face strong pressure to abide by current systems and continue harmful actions.

Like slavery, modern economic and political systems grossly violate the laws of nature. They inevitably will change, probably soon given the massive degradation and suffering they are causing. The Roman Empire and other civilizations collapsed in large part because the people controlling society were insulated from the suffering of average citizens. They resisted change until flawed systems finally collapsed, usually quickly, as occurred with the end of slavery in the US and fall of communism in the Soviet Union.

Big picture space and time perspectives show that this is the trajectory of modern society and our flawed economic and political systems. These well-meaning, but shortsighted systems not only allow massive environmental and social degradation. They compel it. Modern systems will change through voluntary or involuntary means. Involuntary change (collapse) would cause unprecedented suffering and disruption, due to the large, interconnected nature of modern society and the many environmental and social tipping points that we are near or beyond.

“Our myopic systems make the increasingly incorrect assumption that maximizing economic growth will maximize the well-being of society.”

Voluntarily changing economic and political systems can seem impossible, like ending slavery often did in the early US. But slavery changed, and we will too. Humanity is hugely talented, creative and resourceful. Through technology, we are more networked and interconnected than ever before. Millions of individuals, organizations, communities and countries are pioneering sustainable lifestyles and approaches.

A big picture perspective shows that the technology, sophistication and coordination of nature are nearly infinitely greater than that of humanity. But we are parts of nature. We can be vastly more sustainable and truly prosperous than we are now. We can evolve our systems before nature and reality evolve them through collapse. We can do this if we devote the time, attention and resources needed to make system change happen.

2. System Change

Modern economic and political systems were developed from a narrow, reductionistic perspective that ignores many relevant factors. As a result, these systems produce unintended consequences, such as widespread environmental and social degradation. As Einstein said, we must think at a higher level to solve our most complex challenges. That higher level is whole system thinking. It is based on the reality that human society is an interconnected part of the whole Earth system. Effective whole system approaches take all relevant factors into account and eliminate unintended consequences. They have the potential to manifest in human society the nearly infinite sophistication, coordination and prosperity already present in nature.

Shortsighted economic and political systems compel all companies to degrade the environment and society, mainly by not holding them fully responsible for negative environmental and social impacts. These systems usually compel companies to place shareholder returns before the environment, labor, customers and all other stakeholders. If there are conflicts between shareholder returns and any other factor (as there often are), shareholders usually take priority. When companies are not held fully responsible, it is impossible to voluntarily eliminate all negative impacts (i.e. stop harming society) and remain in business.

There are many economic and political system flaws that fail to hold companies fully responsible. These include time value of money, externalities, limited liability, inadequate measurement of social well-being, overemphasis on economic growth and shareholder returns, and inappropriate government influence driving extensive corporate welfare and concentration of wealth. Time value of money devalues future generations and resources, and thereby often compels companies to harm and degrade them. As discussed under limited liability below, not holding companies responsible for the costs and negative impacts they impose on society (externalities) increases total societal costs and compels businesses to cause harm.

What gets measured gets managed. Our myopic systems make the increasingly incorrect assumption that maximizing economic growth will maximize the well-being of society. Economic growth is a means to the end of social well-being. Focusing measurement and management on the means makes it the end goal. Economic growth obviously provides benefits. But it also drives growing environmental and social problems. Putting economic growth and shareholder returns before all else is unintentionally destructive and ultimately suicidal. A rational, enlightened society would focus measurement and management on maximizing the long-term well-being of society.

Economic growth mainly measures business sales growth. Most business assets are owned by a small group of wealthy investors. Focusing the measurement and management of society on economic growth places financial returns to wealthy citizens ahead of all else, including the survival of humanity. This myopic focus harms everyone, including wealthy investors because it degrades the world in which they and their children must survive.

The requirement to provide ever-increasing shareholder returns eventually pushes everything else aside. To illustrate, for many years, a substantial share of profits was used to increase wages, develop new products, invest in property, plant and equipment, and take other actions that broadly benefit society. However, more recently, extensive profits, often over 95 percent, are used to buy back shares. This action was illegal in the US for much of the 1900s. It was seen as stock market manipulation. But business influence of government drove deregulation beginning in the 1980s. As a result, many illegal actions were made legal, including stock buybacks. This contributed to flat wages, concentration of wealth, extensive financial speculation and the 2008 financial crash.

Under our myopic, unintentionally destructive systems, very generally speaking, companies can voluntarily mitigate about 20 percent of short-term and long-term, tangible and intangible, negative environmental and social impacts in a profit-neutral or profit-enhancing manner. Beyond this point, mitigation often increases costs. If companies continue voluntarily reducing negative impacts, they will put themselves out of business long before reaching full impact mitigation.

Modern economic and political systems grossly violate the rule of law. This principle says that individuals and companies should be free to do what they want, provided that they do not harm others. The rule of law usually is applied well to individuals. They are held responsible

through many criminal and other laws. However, the principle is applied poorly to companies in the US and many other countries. Businesses are allowed to cause extensive harm.

“Limited liability is a deceptive term. Liability does not disappear. It is transferred, mostly to taxpayers.”

Laws and regulations usually prohibit immediate and obvious types of harm, such as selling products with ingredients that quickly sicken or kill people. However, extensive, less obvious harm is allowed by economic and political systems. Many types of harm occur over the longer-term and are difficult to quantify or attribute to particular businesses. Intangible harm is real, but often impossible to quantify, such as the divorce, depression, crime and other problems that frequently result from laying off employees in small towns. Companies often are compelled to cause harm when it is not immediate and obvious, no cost-effective alternatives are available, and the probability of being held responsible is low, for example, due to inappropriate influence of government.

If the choice is benefiting shareholders in the short-term or protecting other stakeholders from nebulous, longer-term harm, business leaders frequently put shareholders first. If they do not, they might lose their jobs or put their companies out of business.

Failing to hold business responsible is one of the most important aspects of current systems that future generations will look back on with horror and disbelief. As they attempt to survive in a severely degraded world, they often will think, how could past generations have been stupid enough to not only allow, but compel companies to cause massive environmental and social harm and degradation.

Of course, we are not stupid, as slave owners were not. We simply are not looking at the big picture. Enough of us do not see the massive, often life extinguishing harm we are causing. Once we better understand this, we will do whatever it takes to stop destroying ourselves, as we finally did whatever was necessary to end the horror of slavery.

Limited liability illustrates the destructive aspects of current systems. People in the future will look back on it the way we look back on slavery. We frequently take limited liability for granted because it is a major part of our economic system. Students often are taught the benefits, but not the harm it causes.

Individuals and small business owners are held fully responsible. If they cause harm, their personal assets can be taken to pay for it. There would be no corporations without investors. Therefore, investors are the ultimate responsible parties for harm caused by corporations. But corporate owners are not held to the same responsibility standards as individuals and small business owners. They receive all of the financial upside, but their downside is limited, usually to the amount of their investment.

Limited liability is a deceptive term. Liability does not disappear. It is transferred, mostly to taxpayers. A more accurate name would be transferred liability or taxpayer liability. For

example, if a limited liability company with \$1 million of equity investment caused \$100 million of harm, investors might lose some or all of their investment if the value of the company declines. But they usually could not be compelled to pay for the harm. Insurance might cover some of the cost. But taxpayers often would be required to pay for most of the harm, or suffer reduced quality of life.

Limited liability is an unfair form of socialism. Taxpayers/citizens are compelled to act as the owners of business on the downside (by paying for negative impacts) while receiving none of the financial upside. A limited liability corporation is not a private entity. It is a grossly unfair quasi-public structure.

Limited liability drives substantial environmental and social degradation, while greatly increasing total costs to society. High risk activities often provide high financial returns. Flawed systems usually compel companies to pursue the profit-maximizing strategy. High financial risk frequently limits investment in harmful areas. Transferring the downside to taxpayers improves the risk/return profile for investors and often compels companies to engage in the riskiest activities. This can increase costs to society by compelling citizens to pay to clean up problems caused by business. Preventing problems usually is far less expensive than cleaning up or resolving them. Major problems, such as cleaning the oceans and atmosphere, often cannot be resolved. Citizens will suffer degraded life support systems or not survive.

Many private sector activities would not exist in their current forms if taxpayers were not covering most of the downside, such as nuclear power and many genetically engineered crops, synthetic chemicals and nanotechnology food ingredients. If companies were held fully responsible for the burdens, risks and costs they impose on society, they would be compelled to provide products and services in a nondestructive manner. This would vastly lower total costs to society while substantially improving quality of life.

SUVs provide another example of how future generations might view us differently than we see ourselves. If we are unable to significantly reduce greenhouse gas emissions and predictions of substantial negative climate change impacts occur, future generations will be living in a world that is severely degraded by our actions. They might be angry that we drove unnecessarily large, polluting, fuel-inefficient vehicles when we had the technology to develop far more efficient vehicles, transportation systems and community layouts.

Those owning SUVs in the future might be strongly condemned. But criticizing people today for owning them could seem inappropriate. In the same way, anyone attempting to own slaves today would be severely condemned. But owning slaves in the early southern US was seen as normal and acceptable, as owning an SUV is today. A big picture perspective clarifies our unintentionally harmful actions and the systemic changes needed to improve them.

3. The Sustainable Development Goals

The SDGs are a large step in the right direction. Many countries and companies are striving to achieve them. Wide embrace of the goals shows humanity's rapidly growing awareness of the vast harm we are causing and the need to stop it as quickly as possible.

System change is the most important action needed to achieve the SDGs. The 2030 targets in particular cannot be met without it. Flawed systems are the root causes of the environmental, social and economic problems addressed by the SDGs. The goals largely are focused on symptoms (problems), instead of causes (economic and political systems). National, corporate, NGO and other efforts to achieve the SDGs provide many benefits, and therefore should be greatly expanded. However, voluntary, symptom-focused efforts cannot come close to achieving the goals. Focusing on symptoms instead of causes is like trying to put out a fire while simultaneously throwing gasoline on it. Complementary system change work is needed.

“The root cause of human-induced climate change is not greenhouse gas emissions. It largely is the flawed economic and political systems that compel companies to emit these gases.”

Several reports have identified extensive business opportunities related to the SDGs. But companies only can achieve about 20 percent of the goals under current systems before they violate the obligation to maximize shareholder returns or run up against other systemic barriers to sustainability. System change will greatly accelerate and facilitate SDG achievement.

System change is implied in the SDGs. Discussion of inclusive societies and institutions implies democracy and sustainable political systems. Discussion of sustainable infrastructure, production and economic growth implies sustainable economic systems. As companies strive to achieve the SDGs, they might seek mid-level (sector-level) system changes, such as incorporating a particular externalized cost into prices. But it seems unlikely that the SDGs will drive high-level (economic and political level) system change at the pace and scale needed to achieve the 2030 targets and avoid system collapse.

High-level system change probably represents at least 80 percent of the sustainability solution. One of the most important overarching high-level system changes is to hold companies fully responsible for negative environmental and social impacts (i.e. effectively apply the rule of law to business). Flawed, myopic systems unintentionally place business in systemically-mandated conflict with society. Holding companies fully responsible for harm removes these conflicts. It makes acting in a fully responsible manner (by eliminating all negative impacts) the profit-maximizing strategy. This important system change is implied in SDG target 16.3 (Promote the rule of law).

System change can make SDG work far more effectively. The 17 SDGs and 169 targets in them can produce counterproductive or redundant efforts as companies, governments and other parties spread their work across many different goals. The SDGs have a common root cause—reductionistic thinking and resulting flawed systems. Therefore, they have a common solution—using whole system thinking to evolve economic and political systems into sustainable forms. System change can drive substantial or complete achievement of many SDGs with little or no issue specific work.

To illustrate, the root cause of human-induced climate change is not greenhouse gas emissions. It largely is the flawed economic and political systems that compel companies to emit these gases. Holding businesses fully responsible for these emissions could substantially resolve climate change with little climate specific work. System change is highly efficient because the same high-level system change strategies used to address climate change (i.e. holding companies fully responsible) will significantly resolve many other environmental, social and economic problems.

The SDGs can facilitate system change by providing a partial vision of sustainable society. This helps to identify the system changes and other actions needed to achieve the vision. It appears that the goals sought to balance addressing major sustainability issues with maximizing national and corporate participation. For example, key issues, such as democracy, a global bill of rights, religious freedom, population stabilization and limits to growth, are not adequately or specifically addressed. Doing so might have limited participation from countries that suppress democracy, violate human rights, favor particular religions or have high projected population growth rates.

Making the goals voluntary and emphasizing sustainable economic growth, and high economic growth in the least developed countries, can increase corporate participation. It enables companies to address growing environmental and social concerns, while maintaining their systemically-mandated focus on maximizing shareholder returns.

Stating all of the requirements for sustainable society, including applying the rule of law to business, limiting population and economic growth, and effectively enforcing a global bill of rights, could substantially limit national and corporate participation. It seems that the framers of the SDGs wisely downplayed these issues and made compliance voluntary. Bringing many countries and companies to the SDG table enables humanity to more effectively collaborate and resolve longer-term, complex challenges, such as high-level system change and the major sustainability issues not specifically addressed by the SDGs.

4. Current System Change Efforts

Growing awareness that system change is the most important action needed to achieve the SDGs and sustainability in general is driving increased system change efforts. Academic experts have been studying systems theory, system dynamics, systems thinking, economic reform and similar system change-related topics for decades. A growing number of organizations use this and other research to provide system change services to companies, governments, communities, NGOs and foundations.

Most of this work focuses on system change process, rather than content. Vendors often advocate system change principles and specific processes for implementing them. System change work frequently is focused on the company, sector or community level. The goal often is to model smaller scale approaches that can be scaled up to higher levels and applications. Complex models identify detailed linkages and feedback loops that frequently are difficult for average citizens to understand.

The growing number of economic reform efforts reflects a broader approach to system change. But this work often does not take the whole system into account, and thereby does not adequately address relevant root causes, systemic barriers, key leverage points and optimal solutions. In addition, the emphasis frequently is on encouraging companies to voluntarily implement circular economy and other sustainable economy principles in their own organizations, rather than collaboratively change the overarching economic and political systems that largely constrain and control corporate behavior.

A Putnam Investments article¹ discussed several aspects of corporate and financial sector system thinking. These include considering how corporate activities impact the environment and society, expanding the corporate purpose beyond attaining superior investment returns, striving to achieve the SDGs, and adopting longer-term investment horizons.

All of these activities are important components of system change. Like SDG efforts, the above system change actions provide many benefits, and therefore should be greatly expanded. Also like the SDGs, the above system change work is a large step in the right direction. But broader, complementary system change efforts are needed to achieve the SDGs and evolve economic and political systems into sustainable forms.

System change content (i.e. identifying system flaws and providing practical, specific strategies for resolving them) is just as important as system change process. It can greatly accelerate and facilitate collaborative system change efforts. Current economic and political systems severely constrain the ability of companies to voluntarily reduce negative impacts. The most important system change work is improving these unintentionally destructive systems.

Scaling up smaller efforts sometimes is not practical or relevant to larger scale issues. Economic and political systems largely are controlled nationally. Even with the global financial system, the power to constrain the destructive aspects of it mainly resides at the national level. As a result, large-scale national system change efforts are essential.

Citizens collectively are the most powerful force in society. They could quickly change any government or business. However, they cannot protect their common interests unless systemic problems and solutions are made comprehensible. Economic reform is important. But political reform is more important because the government/political realm largely controls the economy, even with laissez-faire government. Timely, effective economic and political reform only can be achieved through a whole system approach that addresses and links all relevant factors.

5. Whole System Approaches

These strategies apply whole system thinking to the whole Earth system and its sub-element human society. They take all relevant physical and nonphysical aspects of society into account. All actions begin in the mind. Modern society and its many challenges are a reflection of our limited, reductionistic thinking. This thinking is based on the illusion of separation from nature and each other. For example, the dominant view of business (companies are independent entities that should focus mainly on their own well-being) is an

irrational, reality-ignoring, unintentionally destructive position. In reality, businesses and the economy cannot exist without the environment and society.

Whole system thinking shows that it is not logical to consider the well-being of business apart from the well-being of society. A new business approach, called purpose-driven business, is based on this idea. It helps leaders to expand the purpose of their companies from narrowly benefiting shareholders to broadly benefiting society.

The book *Global System Change: A Whole System Approach to Achieving Sustainability and Real Prosperity* uses whole system thinking to provide practical, integrated, systemic solutions to the major challenges facing humanity. It addresses and links all major physical and non-physical aspects of society, including environmental, social, political, economic, psychological, spiritual and religious. The approach empowers people by describing complex issues in ways that non-expert citizens can easily understand. *Global System Change* describes the many economic and political system flaws that compel companies to degrade the environment and society, the specific types of harm caused by businesses, and the numerous deception techniques used by vested interests to mislead the public and avoid being held responsible for negative impacts.

Whole system thinking represents a higher level of consciousness and awareness. Individuals recognize that they are parts of larger systems and ultimately cannot prosper apart from them. Lower levels of consciousness and the illusion of separation create fear and belief in the need for competition. Whole system thinking shows the importance of emulating the nearly infinitely greater implied intelligence all around us in nature. The overwhelming force in healthy natural systems and nature overall is cooperation, not competition. Limited competition occurs at the individual level. But when the overwhelming force is competition, as in a body with terminal cancer, the system is dying. Whole system thinking shows that increased cooperation in human systems and society is essential for achieving sustainability.

Non-judgment is a critical system change principle discussed in *Global System Change*. Yelling at slave owners, or calling them insane or stupid, would not have been an effective way to engage them in transitioning the economy away from slavery. It also would not be an effective way to engage modern business and political leaders in ending the extensive harm caused by business. As noted, these leaders intend to benefit society. The unintentional harm they cause is compelled by flawed systems. As a result, judgment and criticism often are inappropriate and counterproductive.

We do not view current business and political leaders the way we see historical slave owners. But many future people probably will. If they do, their judgment largely would be misplaced. The enemy is not our well-intentioned leaders. It is the flawed systems that compel good people to do bad things.

6. System Change Implementation

System change could take many forms. Work is needed on several levels. Excellent system change work already is being done at the company and community levels. Many organizations are involved in collaborative sector-level (mid-level) system change. But

evolving economic and political systems into sustainable forms (high-level system change) is the most important and complex work needed.

Two critical aspects of high-level system change are awareness raising and collaboration. Extensive media efforts are needed to raise public awareness about the essential need for economic and political reform and the huge benefits that will accrue from it. Growing public pressure will encourage business and government to effectively work for system change.

Helping people to think at a higher, broader level facilitates system change. We tolerated slavery 200 years ago. But we would not tolerate it today, because we understand the horrible, evil nature of slavery. We now are in the process of extinguishing vast amounts of life on this planet, including human life to a growing degree. Lack of awareness and failure to think from a whole system perspective are causing us to act like a cancer on this planet. Once enough people understand this, we will end our unintentionally destructive ways. Vested interests will no longer be able to mislead people into supporting current systems, and thereby block beneficial systemic change.

High-level system change only can be achieved through collaboration. These efforts could be launched and managed by combinations of NGOs, academia, business, government and international organizations, such as the UN. Many groups already are engaged in economic reform and other system change activities. For example, the Wellbeing Economy Alliance is a collaboration of over 50 organizations focused on implementing a sustainable economy. Using whole system approaches, these groups could strongly facilitate high-level system change.

Initial collaborative work should include establishing a vision of sustainable society. The SDGs would be a major component of this. With the vision clear, at least at a broad level, practical, integrated strategies for achieving it can be developed.

At the business and economic level, a primary system change theme should be holding businesses fully responsible for negative impacts (i.e. effectively applying the rule of law). This relates to the Wrong Perspective and Wrong Reference Point deception techniques discussed in *Global System Change*. Synthetic chemicals and many other substances regularly are used in the US and most other countries without independent safety testing. The implied position is that these materials are safe until proven unsafe. But this is the wrong perspective. Anything that threatens life and the environmental systems that sustain life should be considered unsafe until proven safe with independent research at a high level of certainty.

Having routinely violated the first standard, we compound the problem by violating the second. Materials that never should have been used in the first place without independent safety testing continue to be used when independent research shows them to be harmful. To protect shareholder returns, vested interests often argue that products or processes should not be restricted unless there are high levels of certainty that they are causing harm. But this is the wrong reference point. The priority is protecting human life and well-being, not shareholder returns. Parents would not wait for high levels of certainty that children were at risk before protecting them. Once independent, peer-reviewed research indicates potential

harm (perhaps in the 10 to 20 percent certainty range), risky products and processes should be restricted.

“Emphasis should be placed on expanding economic reform efforts that already are being implemented around the world, such as using more accurate measures of social well-being than GDP.”

To protect financial returns, vested interests frequently will argue that limiting potentially harmful activities will threaten jobs and the economy. The implication is that we cannot have good jobs and a stable economy unless we degrade life support systems and society. Obviously this is incorrect. Holding companies to a higher standard (full responsibility) will compel them to achieve it.

Another vested interest deception involves arguing that harm should not be prohibited until it can be accurately quantified. But as noted, some intangible and other impacts cannot be specifically quantified. To protect returns, vested interests essentially argue that they should be allowed to continue harming the environment and society until we know exactly how much harm is occurring. This is not rational. Again, the priority is protecting life and well-being, not financial returns.

There are several ways to hold companies responsible for uncertain levels of harm. For example, panels of independent experts could estimate tangible and intangible harm. To ensure that we err on the side of protecting society, harm estimates could be increased by a significant percentage. As new information becomes available, more accurate estimates could be used. Following expert estimation, companies could be held responsible through tax, fee and other mechanisms. Responsibility could be phased in to minimize disruption. But the phase in should not be unnecessarily extended. Ending the current disruption caused by massive environmental and social degradation takes priority over disrupting business operations.

Effective high-level system change would include a suite of well-coordinated, short-term, mid-term and long-term actions. It is impossible to anticipate all critical work needed for effective system change. As a result, whole system strategies would evolve based on experience and new information.

To build commitment to system change, collaborative groups should identify low hanging fruit—relatively easy, low cost system change actions that provide substantial benefits. These could include tax and regulatory changes that incentivize sustainable corporate behavior. This combined with media and awareness-raising campaigns will accelerate system change.

Political reform is another critical aspect of high-level system change, in large part because substantial economic reform cannot occur without it. A whole system perspective shows that companies must be held responsible for all significant harm. In competitive markets,

this is the only way that they can act in a fully responsible manner and remain in business. Only government can hold business fully responsible for negative environmental and social impacts. This is a main reason why political reform is more important than economic reform.

*System Change Investing and Political Reform*² summarizes many aspects of political reform. One of the most important is establishing true democracy. Many system change efforts focus on implementing sustainable capitalism. But the economy is the servant of society. The emphasis should be on democracy, not capitalism or any other economic form. Once the people control their government and society, they can use rational, whole system thinking to select the economic structures that objectively provide the greatest benefits for the least cost in each situation. For-profit companies will play a major role in sustainable society. However, additional structures, such as employee-owned, cooperative, non-profit and public, would be used in cases where they objectively maximize social well-being.

The emphasis on political reform does not mean that economic reform is not important or should not be addressed until political reform is achieved. Replacing plutocracy (control of government by the wealthy, as in the US), totalitarian democracy (citizens vote but have little control of government, as in China), and other unjust forms of government with democracy (citizens equally control government) is a longer-term issue. A whole system approach to sustainability and the SDGs would include many simultaneous economic and political reform activities. Emphasis should be placed on expanding economic reform efforts that already are being implemented around the world, such as using more accurate measures of social well-being than GDP.

Ultimately, holding companies fully responsible for negative impacts is the only way to achieve the SDGs and sustainability. Governments that are heavily influenced or controlled by business, such as the US government, obviously cannot do this, in the same way that a person accused of a crime could not reliably serve as their own judge and jury. Only governments that are truly controlled by the people (democracy) can effectively hold business responsible and protect citizens' short-term and long-term well-being.

Key political reform leverage points include internal government change, public pressure, and influence from the corporate and financial sectors. Governments that are heavily influenced by vested interests are unlikely to change on their own. Uniting and empowering citizens to work together on their many common interests, such as compelling government to apply the rule of law to business, is a longer-term issue.

The most effective short-term economic and political reform strategy is to engage the corporate and financial sectors in system change through System Change Investing. Companies and wealthy investors already heavily influence government, often in negative ways that allow more harm and thereby increase shareholder returns. SCI encourages companies to work for systemic changes that hold them fully responsible, and thereby make acting responsibly the profit-maximizing strategy.

Companies and investors frequently will resist changing systems that provide short-term financial benefits, as they originally resisted the sustainability movement. Twenty years

ago, many companies believed that implementing sustainability strategies would reduce profitability. But environmental and social issues are increasingly financially relevant. Therefore, effectively addressing them can enhance profitability, like effectively addressing any other financially relevant issue would. As this was better understood over the past 20 years, sustainability became mainstream in the corporate and financial sectors.

The same will happen with system change. Flawed systems increasingly harm companies by compelling them to degrade the environmental and social systems that sustain business. System change is the most important action needed to eliminate negative impacts, and thereby protect and enhance business and society.

The next section summarizes how investing was used to engage the corporate sector in sustainability. This lays the foundation for the following section, which summarizes how investing can be used to engage the corporate and financial sectors in timely, effective system change.

7. Sustainable/Responsible Investing

In the late 1990s and early 2000s, Innovest Strategic Value Advisers pioneered a new approach to Sustainable/Responsible Investing (SRI). Up to that point, nearly all SRI involved negative or ethical screening (i.e. not investing in sectors to which one is ethically opposed). This often reduces portfolio diversity, which can increase risk and lower returns.

Innovest was one of the first organizations to argue that environmental, social and governance (ESG) issues are increasingly financially relevant. Therefore, taking them into account could increase investment returns. The company advocated positive screening (i.e. remaining in sectors and shifting investments toward ESG leaders). This can increase returns by maintaining portfolio diversity while investing in presumably better managed companies.

Some studies found that ESG funds underperform and irrationally concluded that ESG investing (SRI) reduces returns. With most asset classes, some funds outperform while others underperform. The key SRI performance question is: Are ESG issues financially relevant? Obviously they are. Attracting and retaining a high-quality workforce, reducing waste, energy and materials costs, making safe, appealing products, improving relations with suppliers, governments, communities and other stakeholders, establishing a reputation as a responsible company, and nearly all other ESG-related actions can provide substantial financial and competitive benefits.

Using compelling research and logic, Innovest strongly made the case that failing to adequately address ESG issues violates the fiduciary obligation to maximize returns, as ignoring any other financially relevant issue would. If an ESG fund underperforms, it is not because taking ESG issues into account generally lowers returns. As with many other underperforming funds, the primary cause is suboptimal research, construction and management.

Innovest's Managing Director of Research, Frank Dixon (the author of this article), developed or substantially modified its ESG rating models. He also developed the company's

research and rating processes and materials, including scoring guidelines, analyst training materials, and company, sector and ESG issue report templates. He oversaw the ESG analysis and rating of the world's 2,000 largest companies. The primary focus was on determining how ESG issues add financial and competitive value for companies and investors. Dixon used extensive ESG research experience and business judgment to determine which ESG metrics were financially relevant in each sector and assign metric and model weightings.

The approach was highly successful. Without considering financial metrics or performance, Innovest was able to consistently identify financial leaders and add alpha for investors. Splitting sector lists of rated companies in half, ESG leaders outperformed laggards by 300 to 3000 basis points per year over nearly any time period in all high impact sectors and nearly all other sectors.

Innovest's ratings accurately predicted superior financial performance for two general reasons. They accurately assessed the extent to which companies were effectively managing financially relevant ESG-related risks and opportunities. And their ratings were strong indicators of management quality. Nearly any financial analyst would say that management quality is the primary determinant of superior financial returns, because it affects virtually every aspect of business operations. But management quality is intangible. It cannot be measured directly.

ESG ratings are strong indicators of management quality because sustainability is a complex challenge. There are high levels of technical, regulatory and market uncertainty as well as many stakeholders, complex issues and intangible factors to address. Leading sustainability performance strongly indicates sophisticated management that will perform well in other business areas, and thereby earn superior financial and stock market returns.

Innovest sold their research to large pension funds and other institutional investors around the world. The company was purchased by MSCI in 2010. The business case arguments and positive screening methodologies pioneered by Innovest are now mainstream. Many academic, business and financial sector leaders regularly use the same arguments that Innovest first made in the 1990s. Innovest and other companies provided the research that investors needed to take ESG performance into account. Financial community interest was a main factor compelling nearly all large companies to implement sustainability strategies.

8. System Change Investing

Virtually the entire corporate sustainability movement and \$23 trillion global SRI market are focused on voluntary company change—voluntarily reducing negative environmental and social impacts, for example, by lowering pollution and selling low-impact products. But as noted, system change is at least 80 percent of the sustainability solution. One could even argue that it is closer to 100 percent.

If companies are held fully responsible for negative impacts, exhortations to voluntarily reduce impacts will no longer be needed. Companies will eliminate negative impacts (i.e. stop harming the environment and society) not only because this will be the profit-maximizing approach. It also will be the only way to survive.

SCI shifts the focus from company change to system change. It is the most significant transformation in the SRI and corporate sustainability fields in 20 years.

“No company can achieve mid-level and especially high-level system change on its own. Successful system change engagement requires strong collaboration, public communication and big picture thinking skills.”

SCI is the highest-leverage short-term system change option. The approach involves rating companies on system change performance and using the research to develop SCI funds. It is based on proven, successful techniques. SRI strongly drove corporate sustainability over the past 20 years. SCI will do the same with system change.

SCI provides large financial and sustainability benefits. System change is the most important, and therefore the most financially relevant, sustainability issue. SCI adds financial value by assessing management of systemic risks and opportunities as well as providing excellent indicators of management quality.

System change is the most complex management challenge, more difficult than implementing conventional sustainability strategies. No company can achieve mid-level and especially high-level system change on its own. Successful system change engagement requires strong collaboration, public communication and big picture thinking skills. Superior system change performance strongly indicates sophisticated management that will perform well in other business areas, and thereby earn superior returns. SCI ratings can be used as an overlay on value, growth, index and nearly any other type of investment fund to significantly enhance returns.

A growing number of institutional investors, especially pension funds and other long-term focused investors, are seeking systemic approaches that provide substantial sustainability benefits. SCI is the ultimate systemic approach for the capital markets. Using whole system thinking, it effectively engages the corporate and financial sectors in evolving economic and political systems into sustainable forms. SCI can provide far greater sustainability benefits than any other type of SRI because it is focused on the most important sustainability issue—system change.

Like SRI, the key to SCI success is providing strong business cases and practical, return-enhancing models. Corporate and financial sector managers could place their jobs and companies at risk if they fail to discuss economic and political reform in an appealing and logical manner. SCI provides compelling business case arguments for system change. They clearly describe how flawed systems increasingly threaten and harm companies, in large part by placing them in systemically-mandated conflict with society.

The summary business case for system change is this—As the human economy expands in the finite Earth system, negative corporate impacts return more quickly to harm businesses,

often in the form of market rejection, lawsuits and reputation damage. Companies have increasingly strong financial incentives to reduce negative impacts. The vast majority can only be mitigated through system change. Improving flawed systems is essential for long-term, and increasingly shorter-term, business success.

In the short-term, investment returns can be enhanced by investing in system change leaders (because they virtually always will be better managed companies). Over the longer-term, as economic and political systems are evolved into forms that broadly benefit society, instead of mainly benefiting shareholders, overall returns might decline. But the goal should be to achieve this through a logical, minimally disruptive, well-managed process. Economic and political systems will be established that provide sustainable investment returns without degrading the environment and society.

The first SCI model, called Total Corporate Responsibility (TCR[®]), was developed by Frank Dixon in 2003. As the head of research at Innovest, he saw thousands of examples of flawed systems compelling companies to degrade the environment and society by preventing them from fully eliminating negative impacts. He used his ESG modeling and rating expertise to develop a new type of corporate sustainability rating model. As the name implies, Total Corporate Responsibility refers to fully eliminating negative impacts. System change is required to mitigate most impacts. Therefore, TCR is a system change-based approach.

Rating corporate system change performance is more complex than rating traditional ESG performance. The framework or context is much larger. ESG rating focuses largely on unilateral corporate efforts to voluntarily reduce negative impacts, for example, by selling sustainable products and services. The framework for system change rating ultimately is the whole Earth system and its sub-element human society. Before corporate system change performance can be assessed, necessary economic, political and social system changes must be understood. With this framework clear, the optimal corporate role in achieving these changes can be defined.

After developing TCR and advising Walmart and other companies on sustainability and system change, Dixon conducted several years of multidisciplinary research to write *Global System Change*. This provides the framework needed for effective corporate system change rating.

ESG research is used to develop SRI funds. The research needed to create SCI funds could be called ESGS (environmental, social, governance, systemic). TCR illustrates how SCI ratings and funds could be developed. The TCR model is segregated into three performance categories—traditional ESG, mid-level system change and high-level system change. It includes the rating principles, metrics, weightings, data sources and proxies needed to effectively rate corporate system change performance.

System change metric categories include public statements about system change and sustainability, media and awareness raising campaigns, engagement in system change collaborations, efforts to address specific economic and political system flaws, government influence activities including campaign finance and lobbying, and supporting NGOs, academia and other groups promoting system change.

TCR uses a best-in-class rating approach. Nearly all large companies have ESG strategies. A growing number are engaged in collaborative mid-level (sector-level) system change. But few companies are engaged in high-level system change. As a result, this performance category initially would have lower weighting in the TCR model. The performance bar also would be set lower. As more companies engage in high-level system change, performance standards and weightings would increase.

SCI defines the most advanced form of corporate sustainability. The model identifies the actions needed to achieve superior corporate system change performance. These metrics provide a system change roadmap for businesses. Many companies value and seek to maintain high ESG ratings, in large part because SRI fund inclusion can drive up stock prices. As it becomes more widely known that system change is the most important sustainability issue, effective engagement in this area will be essential for maintaining high corporate sustainability ratings.

9. Voluntary Versus Mandatory Corporate Responsibility

Many companies are achieving near record profits. But these earnings are based on extensive externalized costs and environmental/social degradation. It is not rational, fair or sustainable to profit by degrading life support systems and society. This destructive form of business obviously will end, probably soon.

Expanding corporate purposes to broadly benefiting society, adopting B-Corp structures and other voluntary corporate sustainability efforts are highly beneficial, but not nearly enough. Voluntary corporate responsibility cannot work. Abiding by the rule of law (not harming society) must be mandatory, not voluntary. It is more important to apply the rule of law to companies than individuals. People can and usually would act responsibly if there were no requirements to do so. For example, most people would not murder anyone if murder laws were removed. But companies often cannot voluntarily stop harming the environment and society under current systems in competitive markets. That is why acting in a fully responsible manner must be mandatory.

Current leading edge corporate sustainability approaches focus on voluntarily benefiting all stakeholders. But this often is not the most effective orientation. Some argue that it is not the responsibility of business to broadly benefit society. But no one could logically argue that businesses should be allowed to harm any stakeholder group or society in general. It usually would be more effective to focus on harm instead of benefits.

People who oppose corporate sustainability because they do not think companies should be compelled to benefit more than shareholders do not understand this field. There might be no obligation to broadly benefit society. But there certainly is no right to harm stakeholders or society. The key issue and focus of corporate sustainability should not be on voluntarily benefiting stakeholders. It should be on requiring companies to end the substantial harm they are imposing on the environment and society.

Ending harm often involves providing benefits, such as when employees are paid living wages or customers receive safer products. But in public discourse, the emphasis often should

be on mandatory responsibility, not voluntary benefits. Voluntarily providing benefits could be debated. But mandating responsible behavior (i.e. prohibiting substantial, objective harm) is not debatable (within the realm of logic).

Vested interests often argue that some types of harm are an inevitable part of providing the beneficial products and services demanded by society. If we allow this standard, we will achieve it, and no better. Under current systems, companies often cannot afford to eliminate negative impacts and remain in business. If we implement systems that hold business to a higher standard (provide products and services without causing harm), they will figure out how to achieve it or cease to exist.

We have the technology and know-how to largely resolve many environmental and social problems. But it often is difficult to implement these approaches. Current systems frequently create the illusion that harmful products and services are less expensive than non-harmful ones. Flawed systems externalize extensive burdens, costs and negative impacts, and thereby greatly increase total costs to society. Under sustainable systems that take all relevant costs and impacts into account, non-harmful products and services virtually always would be the low cost, highest benefit options.

An approach called Net Positive Impact focuses on maximizing positive impacts and minimizing negative ones. It implies that negative impacts are acceptable if positive impacts are greater. But we do not allow someone to murder a few people on the weekend if they help many more people during the week. Virtually all companies have positive impacts. They would not exist if they did not. Positive impacts largely are irrelevant to negative ones. Doing good does not justify or allow doing bad. Focusing on benefiting stakeholders can seem voluntary and altruistic. It distracts attention from the far more important issue – ending the massive harm currently being done to stakeholders and society in general.

In civilized society, harm must be prevented. Instead of focusing on net positive impacts, the emphasis should be on achieving zero negative impacts. This is the focus of TCR. To achieve the SDGs and sustainability, we must switch the focus of SRI and corporate sustainability from voluntarily doing good to prohibiting causing harm. Companies cannot voluntarily end all harm under current systems and remain in business. But they can voluntarily work with others to change the systems that compel them to cause harm. Voluntary system change is the only approach that has the potential to achieve the SDGs.

Failing to adopt a whole system perspective is causing us to make the same mistakes as past civilizations. Currently, sustainability advisers and other groups usually must make the business case for sustainability to encourage companies to reduce negative impacts. Future generations will see this behavior as insane and horrible, in the same way that we view slavery. We should not have to plead with companies to stop harming children and other people. Obviously, not causing harm must be mandatory. We must begin to apply the same responsibility standards to businesses that we currently apply to individuals.

In a rational and sustainable world, the focus will be on the society case or social well-being case, not the business case. Business activities that cause significant, objective harm

will not be allowed. We do not need to make the case for not murdering someone. It simply is prohibited. Under sustainable systems, the same will be true with business harm. The business case might be needed to encourage companies to voluntarily benefit stakeholders. But it is not needed to prohibit causing harm. In sustainable society, the implied business case would be, act responsibly or cease to exist.

Many people believe that modern economic and political systems are beneficial and sustainable. The systems obviously provide benefits. But they ultimately are suicidal. In a battle between reality and perceived reality (myopic human ideas about economic and political systems), reality always ultimately wins. Reality will correct mistaken ideas about current systems.

Flawed systems will change one way or another. Companies and their investors are far better off taking a seat at the system change table and helping to manage the process in a beneficial, minimally disruptive manner, rather than suffering the consequences of system collapse.

System change will massively benefit business and society. As perceived reality inevitably aligns with this reality, system change will quickly occur. Extensive system changes are needed in all major areas of society. *Global System Change* describes these changes and how to implement them. In the shorter-term, SCI is the most effective way to drive the systemic changes needed to achieve the SDGs and maximize the long-term well-being of humanity.

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Notes

1. Katherine Collins, ESG Outlook for 2019, www.GreenMoneyJournal.com, December 2018.
2. Frank Dixon, "System Change Investing and Political Reform," *Cadmus* 3, no. 5 (2018): 9-26.

Fragile Contexts & People-Centred Preventive Actions

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Abstract

Human tragedies continue to repeat themselves in the same hotspots of the planet. The inadequacy of all remedial policies is in front of our own eyes, but preventive measures are not put in place due to multiple interests and causes. However, a shift to prevention is required if we want to avoid further intensification of destructive phenomena such as violent conflicts, forced migration, poverty, diseases and environmental degradation. It is very clear that the only way to prevent further intensification of extreme man-made and natural disasters is to ensure stable, peaceful productive environments for people in their own lands. That requires a global conception and capacity for action beyond anything done so far. There are many new threats on the horizon: climate change, genetic engineering, artificial intelligence, etc. all of which have implications for human societies. We are entering uncharted waters and the international system is very fragmented and reactive. Countering fragility means primarily providing people with tools and means for a dignified life. A problem-focused and context specific approach is required at all times. Ultimately, solutions that are not truly shared by the local communities are not likely to be taken up and succeed. A people-centred approach is based on enhanced awareness of the impact of potential risks and benefits for the beneficiaries and individuals of a given community, from a cultural, gender and socio-economic standpoint. There is a dire need for an understanding of needs and aspirations that provides a clear pathway to empower those who are at risk of being left behind.

Some 1.5 billion people live in countries that experience situations of fragility and armed violence, and another 200 million people are affected by the slow or sudden onset of disasters. Conflict and catastrophic events are triggered by a variety of factors and can impact differently on societies, but in one way or another they all undermine peoples' livelihoods. Left unattended, these events inevitably lead to increased poverty, inequality and social unrest.

The 2018 *States Fragility Report* of OECD*, released in November 2018, points to the fact that without decisive global action, more than 80% of the world's poorest will be living in fragile situations and insecure environments by 2030.

Fragility, as we all know, is not just a signature concept for academics, but it is the unequivocal expression of a constant threat to human beings. Threats not just represent the number of violent conflicts on the rise and the fact that an average of 80,000 people attempt to flee their poverty and violence-stricken homes and communities each day. The

* See OECD (2018), *States of Fragility 2018*, OECD, Paris

menace to peace and stability is represented by multiple crises that gravitate upon the most vulnerable people and exacerbate situations that are already intractable with global spill over and consequences.

“[There is an] underestimation of the human element and its complex nature that cannot be explored and explained merely in terms of parameters such as wealth, economic growth or ideological affiliation.”

From a people-centred perspective, fragility could be seen as a bundle of inextricably linked causes and consequences that hamper normal life expectations, personal freedom and dignity. All those “things” that should be handled with care as if they were about to explode in a physical reaction or, more simply, as if they were delicate goods for consignment, labelled or not, as fragile. What requires particular care and special handling are the possible chain reactions among fragility factors, causes and effects: For instance, an epidemic outburst, migratory patterns, local corruption, infrastructure deficits, extreme violence, and so on. All these patterns could be found in many societies, even ones that are considered most stable and secure.

In fragile settings, we are often confronted with extreme destitution and people are not just interested in growth and development. Poverty is due to the lack of income and resources, exploitation, mismanagement and the absence of adequate planning to support sustainable livelihoods. Its manifestations include hunger and malnutrition, limited access to education and other basic services, social discrimination and exclusion as well as the lack of participation in decision-making. Economic growth should be inclusive to provide sustainable interventions and promote equality. However, impacts of multiple calamities during the global socioeconomic crisis are compounding the threats faced by people living in poverty around the world.

1. People Taking Ownership for Peace

Countering fragility means primarily providing people with tools and means for leading a dignified life. The international community, made of a multiplicity of local actors and transnational interests, is considering how to make an impact on fragile contexts averting conflicts, natural and human-induced disasters, increased poverty and the alienation of large chunks of society.

However, two fundamental mistakes often mislead us in our efforts to comprehend the evolution of many political, economic, societal, environmental and security-related crises: One being the oversimplification of the analysis itself that sometimes relies only on predetermined theories of change (causes and effects) with variables that are hardly accounted for; the second being the underestimation of the human element and its complex nature that

cannot be explored and explained merely in terms of parameters such as wealth, economic growth or ideological affiliation.

“There are unutilized human resources and capacities, but nobody has a complete inventory of them all; nor do we know how to use these capacities.”

In terms of the diagnostics, we should look at context-specific entry points and the long-term evolution of crises. *One-size does not fit all* is the general principle to be applied. No matter how much research has been conducted on the origin and underlying causes of conflict, we cannot expect to import and export experiences and lessons learned from completely different contexts.

Negotiators and peacemakers should increasingly concentrate on the positive side of the story. Even in the darkest pictures of the most intractable conflict, there is a dim light somewhere. I have personally witnessed many episodes of daily survival and coping strategies followed by the most resilient women, children and men in times of armed conflicts, natural disasters and the days that follow: Those dim lights I saw at night through the skeletons of shelled buildings during the conflict in Yugoslavia and the courage and dignity of those who repaired their shuttered huts and reopened a central-African village market just confirm how resourceful humans can be. Building human resilience rather than proposing a foreign-led humanitarian intervention or a conflict prevention measure gone astray is certainly a more constructive way of inducing peace. People taking ownership for peace processes and for preserving their local origins from where everything begins, are decisive factors in any success story. Boundaries can expand and more actors should be included into the fold as we dig into the crisis and try to exert a positive influence for its resolution.

I came to realize that it is always important to acknowledge endogenous peace processes at local, national and regional levels: Impartial problem solvers should aim to focus on these processes. It is not unusual that an ongoing positive discourse between two rival communities on the ground can potentially help overcome difficulties encountered by stalled formal peace processes and negotiations.

At all times in fragile settings, accompanying and seconding initiatives that are locally based, peace promoters and international negotiators have a role in setting the scene, preparing the ground and opening access for all potential stakeholders in the formal or informal negotiation process. A problem-focused and context-specific approach is required for analysis and further preparation. Who is credible on the ground? Who has capacities? These are the questions we should ask ourselves to overcome the silos approach in overcrowded and dangerously drifting situations.

Overcoming the gap between the analysis and congruent actions is the next step. If we do not know how to move forward or design the right theory of change, we should not superimpose a ready-made solution. In many cases, peace mapping might be required to flesh

out what is the potential contribution of different actors, what works and what does not work. For sure, to appreciate changes in the making, a global and locally shared contextual analysis is required in addition to polycentric action.

“The transformation in the making requires us to place emphasis on and imagine a future that should not be delinked from individual aspirations and freedom of choice.”

In the context of rising geopolitical rivalry, multilevel prevention and inter-communal dialogue are required, it is essential for the local dimension to have primacy and neighbourhood agreements are relevant. Due to the fragmentation of local and international actors, a complementarity of actions is required. Also, the relevance of inclusive preventive mechanisms, such as those that involve women and youth organizations through spontaneous networks based on local interest and conditions, is to be acknowledged. Undoubtedly, there are unutilized human resources and capacities, but nobody has a complete inventory of them all; nor do we know how to use these capacities. There are a lot of actors out there and it is impossible to coordinate all actions and positive efforts. Ultimately, solutions that are not truly endorsed by the local communities are not likely to be taken up and therefore, are not likely to succeed.

A people-centred approach is based on enhanced awareness of the impact of potential risks and benefits for the beneficiaries and individuals of a given community, from a cultural, gender and socio-economic standpoint. There is a dire need for an understanding of needs and aspirations that provides a clear pathway to empower those who are at risk of being left behind.

2. Anticipation and Prevention

This approach also helps to understand what kind of preventive actions could be put in place. To avert protracted crises and human suffering, prevention is needed even if in certain cases it looks as if deescalating tensions were impossible and events were uncontrollable. In all circumstances, inclusive dialogue and participation, combined with sustainable socio-economic development opportunities, are part of the equation to address, with preventive action, the resurgence of conflicts.

More efforts are required now to manage risks and to anticipate change. The world is in turmoil. The consequences of unconscious human action are overwhelming. Norms are cast aside with rampant impunity. State and non-state actors do not comply with international obligations. There are many new threats on the horizon: climate change, genetic engineering, artificial intelligence, etc., and all of them have implications for human societies. We are entering uncharted waters and the international system is very fragmented and reactive.

Futurologists and social scientists ask themselves where we are heading and if it is possible to act pre-emptively and correct the trajectory of dangerous spirals, that would inevitably trap populations at risk. The answer is unwritten as the future is. We know that

there is a future but, paraphrasing a successful marketing campaign of a luxury brand—*Do we know what we are going to do with all that future?* The transformation in the making requires us to place emphasis on and imagine a future that should not be delinked from individual aspirations and freedom of choice. *And now, what are you going to do?* This is a question from a cabdriver to the passenger that has just missed an important appointment or interview due to traffic jam. It is also the question for political leaders and scientists who wish to define a pragmatic course of action through a maze of non-linear events. We are supposed to find a solution but we are incapable of addressing the real causes of the malaise.

“Sustaining peace should be broadly understood as a goal and a process to build a common vision of a society, and the needs of all segments of the population should be taken into account.”

Considering the escalating human and economic cost of conflicts and the complexity and challenges encountered in conflict-affected and fragile settings, the UN and its Member States are now shifting the focus from response to prevention as a crucial aspect for preserving stability. This shift should be implemented in addressing the root causes of conflict rather than applying quick fix solutions and focusing on responding to crises alone. When dealing with crisis prevention we cannot limit ourselves to just food and lifesaving assistance. We need to build lives for tomorrow as well.

The Agenda 2030 for Sustainable Development and its development goals intend ensuring survival on our planet, embracing the three dimensions of sustainability: economic, social and environmental. Moreover, the 2030 Agenda states that sustainable development cannot be realized without peace and security. The issue of sustaining peace is interlinked with sustainable development in a continuum that embraces peacebuilding–humanitarian–development and human rights action. In parallel, the sustaining peace resolutions*, a milestone for the United Nations and member states, promote the adoption of an approach that prevents conflict from breaking into violence. It was recognized in the resolutions that sustaining peace should be broadly understood as a goal and a process to build a common vision of a society, and the needs of all segments of the population should be taken into account. This comes with the recognition that efforts to sustain peace are necessary not only when a conflict breaks out but long beforehand, through the prevention of conflict and by addressing its root causes.

While humanitarian assistance budgets and the toll of disaster consequences and political failure have been constantly increasing, we should shift to prevention measures. Indeed, the international system now in place has two intergovernmental mechanisms (sustaining peace and Sustainable Development Goals) that combinedly represent a paradigm shift. The answer to conflicts and violence is or would be through a chain of actions influenced by sustainable development investments that would allow fragile societies to become more resilient.

* UN General Assembly Resolution 262 and Security Council Resolution 2282 (2016)

This is quite a change from decades of *post-facto* humanitarian assistance, traditional peacekeeping and humanitarian interventions that have certainly saved lives but have not preserved livelihoods while scrapping the surface of the problem in the midst of intractable crises and violent conflicts.

Certainly, a new posture and a cultural shift are necessary to support promising community-level engagements along with commitments being reaffirmed by governments and public institutions. Prevention at the local level and crisis risk management needs to be incorporated in all public and private activity, aiming to avoid the accumulation of new risks in all prospective activities. A corrective risk management is one that seeks to reduce existing risk, supporting the resilience of individuals and societies in the face of “residual risk”. In this sense resilience is built before, during and after disasters or conflicts, and focuses on the ability to overcome crises rather than preventing them entirely.

In future, humanitarian, development and peacebuilding activities will have to be more “risk informed” and sustainable. This will require a fundamental change from planning and programming “risk-insensitive” political priorities towards establishing a world-wide practice of long-term strategic planning integrated with sound crisis risk analysis and vulnerability assessments.

Early and later prevention is needed at all stages. Working with people, local communities and governments allows us to facilitate compromise and to exert peer pressure against violence and conflict, deconstructing the enemy picture, defusing the creation of new enemies and demystifying who the enemy is and who is not. Often, perceptions become reality and working on those perceptions, without dispensing judgements, is a key factor to gain mutual confidence and trust.

A culture of prevention and resilience, through inter-communal dialogue, could bring about the necessary change for mutual learning, understanding and peace.

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Contribution of the Economy to Emerging Global Governance*

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Abstract

Accelerating globalization leads through its rapidly increasing interconnectivities to a highly interdependent global whole with different functional subsystems, which are currently divorced from each other. The economy is separated from the society and within the economy financial, man-made, natural and human capital are divorced from each other, which leads to crises. Preserving economic wealth needs a reintegration of all capitals. Global governance in the future has to concentrate on the beneficial impact of global cooperation. Historical experiences show that pure competition is in contradiction with globalization. As nation-states have lost their influence, global governance has to enhance cooperation between all capitals. In face of the global limits of natural capital and the abundance of financial capital, man-made capital has to be increased, which in turn requires higher human capital. The future evolution of global governance needs a democratization of the economy and an enlargement of the present voting democracy to a politico-economic democracy. Implementing a global constitution based on human rights and human dignity will question the presently dominating Bretton Woods Agreement fundamentally.

1. The Emerging Global Entity and Global Democratic Governance

Lately, most considerations on global governance have started concentrating on the interaction between countries. The world economy is a highly interdependent whole of different functional subsystems. A fundamental characteristic of subsystems is, they largely act as self-referential units, are divorced from each other and thereby produce crises. The main divorces are the separation between the society and the economy and within the economy, there is the mutual separation of the financial, man-made, natural and human capital. Through global limits, the world economy has become a very uneven entity, but nations' strong interconnectivities endogenously enforce increasing global cooperation, which needs to be a main point of reference for the development of global governance.

During colonial times, rather isolated and partly nationalistic countries competed politically and economically for global influence. Now, at the time of accelerating globalization, strong negative feedbacks turn countries to competition, which reduces negative spillovers and increases common productivity. To a certain extent, competition between countries will

* The paper is based on the author's presentation at the roundtable on "Emerging New Civilization Initiative" held in IUC, Dubrovnik, Croatia in November 2018 by a joint collaboration of the World Academy of Art & Science & the Club of Rome

remain, but the emergence of a global entity reduces the role of nation-states, possibility of economy dominating the society and abolishes fragmentary global governance. Solving universal global problems beyond nation-states has been tackled in the case of natural capital (COP21), but much less is being done for the financial and real productive capital, which should be given priority now.

“Preserving existing global economic wealth needs a vigorous augmentation of human capital and an extension of political global governance to a politico-economic global governance.”

A Global Constitution, based on human rights and a voting democracy, is crucial for the development of global governance. However, without an economic underpinning, it is prone to political and economic dynamics. National constitutions contain a great variety of human rights and formal democratic procedures, but their real implementation is far behind. Therefore, a Global Constitution for the emerging global entity has to refer to the endogenously enforced global cooperation and its opposite tendencies to further the divorce between the financial, man-made, natural and human capital. Such a primarily economic perspective of democratic governance has to be enriched through social and cultural dimensions and the equal distribution of societal power.

2. Globalisation and the Evolution of Global Economic Wealth

Historical experience shows that wealth creation through internationalization and globalization depends on the degree of cooperative behavior and the relationship between the financial and real productive capital. Nation-oriented strategies for global influence lead to the destruction of economic wealth, partly resulting from wars. Globalization in 1910 was about the same level as in 1970 and the 30 years of World War I and II destroyed about a third of all capital equipment and enormous human resources. The competition-oriented international policies with real and financial capital investments had created a form of global entity, but the lack of cooperation resulted in a huge destruction of economic wealth.

After World War II, industrial countries adopted the cooperation-oriented Bretton Woods Agreement for re-establishing their productive capacities through the IMF, WB and WTO, which enhanced economic growth through mutually increasing investments within the industrial world with a minor redistribution of global economic wealth to economically less performing countries. International cooperation between the industrial countries (OECD) and the developing countries led again to a very unequal global entity dominated by the First World.

Since the 1970s, enlarged global cooperation resulted from over-accumulation of capital in industrial countries and induced more direct investments of multinational firms in emerging countries with very limited “trickle-down” effects. Increasing imports of natural resources from developing countries and mercantilist strategies induced a large expansion of world

trade without developing the enormous natural and human resources in the Third World. Increasing global trade was primarily based on real investments and increasing economic growth, and this was accompanied by reducing gaps in the still uneven global entity.

In the era of financialisation, the emergence of the global entity is governed by the financial markets, which create artificial economic wealth and recurrent financial crises, and destroy real global economic wealth. What was formerly executed through real sector “cleaning crises” and regionally limited military conflicts is now systematically executed through the global, or rather uniform, financial system, which is divorced from real production and the employment of human resources. As nation-states have lost political and economic influence, the future orientation of global governance should be on the societal subsystems of financial, man-made, natural and human capital.

3. Preserving Global Wealth through Re-integration of Capital

Industrialism has produced enormous economic resources and made them available to the global society. The currently divorced financial, man-made, natural and human capital have to be integrated. A balanced integration of all capital can prevent destruction of the inherited economic wealth. In face of the limits of natural capital and the abundance of financial capital, man-made capital can be increased, which needs higher human capital investments. Preserving existing global economic wealth needs a vigorous augmentation of human capital and an extension of political global governance to a politico-economic global governance.

A turn from prevailing capital-centered to human-centered global governance will increase the responsibilities of capital owners and give priority to human rights to which property rights have to adapt. Properties have to be organised according to human-centered values, which imply a cooperation between firms’ management and workers instead of the actually detrimental cooperation between management and the financial markets. Real production and wealth creation should be rooted in cultural values and serve the demands of the society as a whole.

Developing human capital can be accelerated through human-centered education, but it also rests on a human-centered productive system of wealth creation. Alleviating the oppressive effects of prevailing socio-economic and technological cages in production will strongly increase human creativity and productivity. The development of global democratic governance has to cope with extensive reallocations of material and immaterial capitals. The main challenge is their human-centered allocation and ultimately the development of humans as holistic personalities.

Global economic governance needs a shift from competition to cooperation of nations and continents without neglecting the rich diversity of their natural and human resources. Accordingly, the re-integration of capital will result in regionally different combinations of capital. Instead of rather uniform globalization strategies of International Economic Institutions (G7/20 etc.), each country and region have to develop their domestic resources and global governance should embrace global and regional diversity, which is a strength

for the emerging global society. Uniform strategies for further globalization tend to create unipolar hegemonies instead of a decentralized global governance structure.

“From an economic perspective, there should be a far-reaching shift from the outdated Bretton Woods Agreement to creating a “new global social contract” which, if given the highest priority, will effectively contribute to the development of a more democratic global governance model.”

4. Democratic Governance for the Emerging Global Entity

Future evolution toward global governance needs a democratization of the economy and an enlargement of the present political voting democracy to a politico-economic democracy. Although a Global Constitution based on human rights and a voting democracy should be the reference for global governance, it remains empty without an economic underpinning through the large population. The evolution of the global society into an entity with natural limits endogenously enforces the politico-economic participation of the large population, which has to manage the globe.

In the past, global development was mainly driven by the economy and its detrimental effects are the main causes for the present fragmentary and biased global governance. The implementation of a “new global social contract” will be the next step and an evolutionary advance over the capital-centered Bretton Woods Agreement. Future global governance has to observe the increasing interconnectivities in favour of a cooperative orientation. A main contribution of business and the economy to future global governance is its endogenously enforced turn to cooperation. The increasing consciousness of overall interdependencies and negative spill-overs of uncoordinated economic globalization processes may facilitate the politico-economic global governance model we envision.

The development of a politico-economic global governance model becomes easier through the enormously increasing information about manifold global dynamics. The global entity has become a rather transparent whole, thanks to easy transportation, conferences and the Internet and its related instruments, like social media and cryptocurrencies. Presently, the globalized information system is biased due to private and public interests, which prevent any self-regulation and need public regulation. The increasing bottom-up initiatives and the rapidly expanding scene of NGOs will partly correct biased information, but without support through a global politico-economic governance model, they do not have much influence because of existing global power structures.

Global socio-economic power is very unevenly distributed between industrial and developing countries. It results from the uneven distribution of material and immaterial

properties, its organization and handling values. Historical experiences demonstrate that more equality is a multi-dimensional long-term process to which a global democratic governance can contribute through selected politico-economic transition strategies through changes in the financial, man-made, natural and human capital. From an economic perspective, there should be a far-reaching shift from the outdated Bretton Woods Agreement to creating a “new global social contract” which, if given the highest priority, will effectively contribute to the development of a more democratic global governance model.

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Educating for the Future: Empowering the Human Mind and Redefining Values and Citizenship in the Age of Technological Disruption*

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Abstract

What are the goals of education, and how should they be interpreted in our time? The challenges posed by the emergence of technologies like Artificial Intelligence demand a renewed reflection on the nature and scope of the educational process, in order to address the question of how to educate the human mind to cope with these problems and opportunities. The aim of this paper is to explore a framework for the relationship between education, values and new technologies within the present social and economic context. In it, the role of rationality, emotions, empathy, creativity and the possibility of developing a broader concept of “mind” for empowering human beings and helping us to better understand ourselves and the world will also be examined. In essence, the paper contains a summary of the main ideas discussed in the Fifth Altius conference on “Educating for the Future” at the Oxford Union,[†] which took place between September 28 and 30, 2018.[‡] Due to the Chatham House Rule

* This paper is an edited version of the report on the Fifth Altius Conference at the Oxford Union. It is written on behalf of the Altius Society at Oxford, with the collaboration of Altius scholars Ashkan Golestani, María Alegría Gutiérrez, Pamina Smith, Joshua Tan, and Sven Wang. The Altius Society wants to express its special gratitude to Ashkan Golestani for his valuable help in editing the text, and to Garry Jacobs (who has participated in the last three Altius conferences as a speaker and attendee and whose questions have greatly contributed to the debates) for his suggestion of publishing this report in *Cadmus*.

† The Altius Society at Oxford (<https://www.altius-society.com/>) was founded by Carlos Blanco Pérez and Alexandre Pérez Casares in 2012 with the aim of becoming a global forum where senior practitioners, academics, and political figures, as well as young promising scholars and professionals gather to discuss the most relevant strategic trends of the 21st century and their impact on the future of our societies and economies. Based on the ideal of intellectual cooperation across academic disciplines, the past themes of the Altius conferences at Oxford have been “The future of democracy in the Western hemisphere” (2014), “The extension of life” (2015), “The brain of the future” (2016) and “The future of communication” (2017). Throughout these years, Nobel laureates, Fields medalists, and world-renowned philosophers have spoken at the Altius conference in the Debating Chamber of the Oxford Union.

‡ Among the speakers at the Fifth Altius conference it is worth mentioning the names of the following: Sheldon Glashow (1979 Nobel laureate in Physics), Peter Agre (2003 Nobel laureate in Chemistry), Oliver Hart (2016 Nobel laureate in Economics), Sir Richard Roberts (1993 Nobel laureate in Medicine), Howard Gardner (Professor at Harvard University), Rose Luckin (Professor at University College, London), Jeffrey Sachs (Professor at Columbia University), Manuela Veloso (Professor at Carnegie Mellon University), Anne Watson (Professor at the University of Oxford), Simon Blackburn (Professor at the University of Cambridge), Andreas Schleicher (Director of the PISA report), Archie Brown (Professor at the University of Oxford), Mikołaj Dowgiałewicz (former Polish minister for European Affairs), Peter Atkins (Professor at the University of Oxford), Miguel Angel Moratinos (former Spanish minister for Foreign Affairs), Olivier Crouzet (Dean of Studies at École 42, Paris), Lady Barbara Judge (former Chairman of the UK Pension Protection Fund), and David Berry (Professor at the University of Sussex).

requirements, attribution has been avoided. Thus, the report is focused on the presentation of the most relevant concepts and arguments expressed by the speakers and exchanged with the audience. In any case, the report is not exhaustive and it does not necessarily reflect the order of events followed at the Oxford Union. Rather, it is aimed at exposing, in a concise manner, the principal themes that were explored during the conference and the key practical suggestions drawn from different sessions.

1. Introduction

1.1. The Role of Science and Education in the Future of Democratic Societies in the 21st Century

Minorities have clearly had fewer education opportunities throughout the history of humanity, which has enhanced economic differences amongst these groups. Science and Education, particularly on STEM (“Science, Technology, Engineering, and Mathematics”) subjects, have the power to “equalize” and create “social elevators” which are the key to transforming and improving the Democratic Societies of our century. This compelling concept was explained through an exploration of the history of education in the US, throughout which economic inequality correlates directly with access to Science and Education.

The Independence of the US from Britain led to the foundation of Harvard, Columbia, Yale and several other universities, some of which were directly founded by the Fathers of the Constitution. Although the goal of these institutions was to provide opportunities, in truth, these opportunities were restricted to white males who had wider access to education, at a time when slaves could not even read.

Shortly after, the Moral Act was signed and the National Academy of Arts and Sciences was created, but opportunities were still restricted for Asians and African-Americans, who started growing in number during the 1890s. Even when Jews started migrating from Europe in the 20th century, opportunities took a while to be open to them.

A few years later, thanks to Martin Luther King, segregation was finally abolished and minorities had access to university education. However, the representation of these minority groups was scarce in most university degrees, particularly the ones which led to higher future earnings (i.e. Minority groups represented 50% of the population in 1965 but only 2% of them enrolled in the medical sciences).

Even today, African-American students have much worse preparation opportunities for SATs, which leads to smaller ratios at university, particularly in business-related and high-demand careers, thereby enhancing economic inequalities. Still today, the median household income is double for white people than for African-Americans, and the value of property owned is 7 times greater for whites.

This short history of the evolution of education in the US over the last few decades shows two key learnings for the way we should design education and social institutions moving forward. The first is that big changes do not come from groups, but rather from individual leaders with the courage and ability to take action. Second, much greater effort must be put into ensuring equal opportunities for different ethnic groups, particularly in fields such as

STEM which will be in high demand in the next few years and will yield higher salaries, since without those efforts, economic inequalities will keep growing and the future stability of our democracies will be at stake.

“To achieve true sustainable development, humanity needs to be empowered with good ideas and clarity of thought, politics should be about well-being, and the common good should be the priority.”

1.2. Sustainable Development by Design: Technology, Policy, Politics and Ethics

Sustainable development, understood as the existence of a prosperous and fair economy which is sustainable for the environment, should become the world’s first and most important concern, as it is the only path towards the survival of our species. The current economy is clearly not sustainable and, although it has been able to deliver wealth, the wealth created is not equally distributed. The solution to this enormous challenge is both technological and political.

The technical approach includes asking questions such as, “what do we want and how to get there?”, and is in the hands of the thousands of brilliant engineering minds of our society. The problem comes mainly from our sourcing of energy and increase in complexity as the global population maintains its unstoppable growth rates. However, even if we are not yet there, we are not far from a potential solution: a smart combination of non-polluting technologies, including nuclear, hydro, wind and solar, coupled with changes in the transportation industry towards electric engines, is clearly the way towards a technological solution to our biggest challenge.

However, the main reasons we are not able to achieve a sustainable economy are not analytical or technological, but rather related to the political domain, where change is often slower and where the influence of lobbying can become an important barrier.

In this sense, ratification of the Paris Climate Agreement offers unique and valuable guidance for the implementation of Sustainable Development Goals as they frame the challenge and define ambitious objectives. It is important to remember that the goals are not plans of action, they are just objectives, so they need to be transformed into realities through careful implementation, with cooperation and expertise being critical at every stage.

The goals of sustainable development are ambitious because the challenges we face can become irreversible catastrophes. They may be divided into three main categories: Economic Development, Social Justice and Environmental Sustainability. While the three are connected, it is not easy to explain the connection between them. In order to solve the issues at hand, we need to identify the diagnostics, but even this alone is not enough. Good ideas need a “theory of change,” that is, a way to implement the change.

For instance, most people desire universal access to basic needs. However, this right cannot be realized simply through policy, as it needs a budget. Therefore, the battle of social

inclusion was framed as the battle against the rich and powerful, where it was claimed that “Wealth is addictive.” Such a view implies that social inclusion is about saying “no” to the rich and powerful, taxing them more heavily to fund national healthcare services, high quality public education, etc.

Nevertheless, in countries like the US, this change is difficult because the government is controlled by a small wealthy elite which lobbies for tax cuts. “The level of greed we are up against is unbelievable”, “It is a derangement of social life to have so much wealth at the top and so many tax cuts,” and other similar statements were put forward to show how undoubtedly corrupt the current political system is in favor of the rich at the expense of what the majority wants.

When it comes to the environment, it is largely a matter of changing the technologies of energy production. Sadly, even countries which seemingly support the use of renewable resources find that their hands are tied by the fossil fuels lobby. For example, in Canada, we see how wealth governs interests and how the oil industry calls the shots by controlling the vote in Alberta. Thus, while the country itself is technically becoming greener because it is reducing its use of fossil fuels, it is at the same time maximizing its sale of fossil fuels to the rest of the world in order to be able to economically sustain this change. This example clearly shows how the challenge is often more political than technical, and how change requires a lot of optimism.

We live in an age of complexity and many systems (energy systems, health systems, sustainable land use and ecosystems) will be involved if we are to achieve these goals. Therefore, we must consult experts from these systems and trust their guidance if we want to succeed in putting a political solution to this enormous challenge. Sadly, we face a phenomenon where experts are only valued when they can be used to make money and are otherwise depreciated in the public sphere if they pose a threat to powerful vested interests. For instance, expertise should have been able to undo Trump’s agenda if we lived in a society where expertise and science were respected.

The theory of change proposed lies on the assumption that most people are normal and not addicted to wealth accumulation. They do, however, want decent lives and access to basic amenities. Therefore, the SDGs are aligned with human nature, but are acting against a powerful world minority. *To attain true sustainable development, humanity needs to be empowered with good ideas and clarity of thought, politics should be about well-being, and the common good should be the priority.* The final solution will require a lot of activism and political influence, supported by professional expertise from different spheres to work together and implement technical solutions.

2. Education in a World Driven by Artificial Intelligence

2.1. Re-conceptualizing the Purpose and Methodologies of Education in the Artificial Intelligence Era

There are two fundamental questions regarding the role of AI in Education:

1. How can we teach young and old people to be ready for a society disrupted by Artificial Intelligence?
2. What value can Artificial Intelligence bring to education?

Regarding the first question, if done in the right way, there is little doubt that Artificial Intelligence can bring extraordinary benefits. Because the human-human connection remains fundamental, the goal is to blend human interaction and artificial intelligence in the best possible way. In order to achieve this blend, one needs to “re-conceptualize” intelligence and identify the aspects that are/are not covered in Artificial Intelligence. Only then, can one ask: how does one educate kids to use Artificial Intelligence in the way it is intended to be used?

“Artificial Intelligence should empower us to think more about who we are, what it means to be human.”

It is well known that there are two sides to human intelligence: the emotional side, and the rational, scientific-minded side, both of which are important in education. Artificial Intelligence can only help in relation to the second side, and even then only partially. Thus, we should not compare Artificial Intelligence to human intelligence; rather we should see it in a different light, with non-human (human-complementing) features.

Given the strength of Artificial Intelligence algorithms, one could build an Artificial Intelligence with all the knowledge of a student. Thus, Artificial Intelligence is a catalyst which should push us to move away from ‘academic’ intelligence to more sophisticated, purely human types of intelligence. *Artificial Intelligence should empower us to think more about who we are, what it means to be human*, understanding where knowledge and evidence come from, etc. We need to teach intelligence as something that goes beyond the knowledge of facts, in order to understand our emotional processes and the underlying reasons for everything we are surrounded by, at a “meta-level.”

So far, we have been focusing on teaching things that are measurable afterwards, and therefore not at this meta-level. However, if we want our students to succeed in the era of Artificial Intelligence, we need to start creating that ‘meta-intelligence’ that will enable them to become truly useful individuals who go far beyond what Artificial Intelligence can achieve.

Regarding the second aspect, that is, how Artificial Intelligence can help teachers, we should see Artificial Intelligence as an incredibly useful tool which can help them focus on the value-added part of pedagogy. By building, for instance, an Artificial Intelligence tutor who can tutor academic knowledge (numeracy, literacy, etc.) just as well as humans, we can free our human teachers so that they can focus on what they are best at, including emotional intelligence, beyond-academic intelligence, trans-intelligence, etc.

In the future, Artificial Intelligence systems could also learn about our students and teachers, and evaluate and improve the learning process. It can help us understand ourselves and our emotions during the learning process.

2.2 Artificial Intelligence-Human Interaction and its impact on Education

The notion of autonomy is crucial for Artificial Intelligence. This in turn includes three pillars:

1. Perception
2. Cognition
3. Action

The autonomous mobile robot CoBot, developed at Carnegie Mellon University, was presented as an example because it fulfills all these three aspects. Crucially, it has its own mobility, which computers and smartphones do not possess. Hence the Artificial Intelligence it has incorporated needs to process *real-time* data (giving an answer in a month is not enough), and sensory data (voices, images), in order to make decisions and move around the University.

CoBot has a sensory system which allows it to know the distances to all obstacles around, like Google cars and other autonomous cars do. Moreover, it takes into account uncertainty in its decisions. But as they gather more information, they are able to become better, uncertainty decreases, leading to more confident decisions.

However, as it is well known, Artificial Intelligence has many limitations. The first is that, in most Artificial Intelligence applications, the system encounters cases in which its training is insufficient, thus requiring humans to help to ensure the decision is right. Hence, a new approach of “symbiotic autonomy” was proposed as the best way to keep developing Artificial Intelligence solutions in the world: every time the uncertainty is too big, the Artificial Intelligence system should ask for help. This new way of human-Artificial Intelligence interaction was again shown with the CoBot example, making it clear that there is still a long way to go with the development of Artificial Intelligence.

Another usual limitation of Artificial Intelligence is its lack of transparency. Indeed, as Neural Networks and other algorithms are still “black boxes” from which it is often hard to obtain information, it is very important that Artificial Intelligence systems “verbalize” their “thinking”. The inside of a robot such as the CoBot is cryptic, hence one needs to translate the autonomous experience of robots to natural language. *Verbalization* is one project in this direction that has been developed in Carnegie Mellon and is also presented as a crucial development for Artificial Intelligence systems to be able to expand to other industries.

These developments of the Artificial Intelligence-Human Interaction trigger the need for new skills, including decision making and data skills. For instance, the “Kindergarten” curriculum should include data skills, such as being able to interpret uncertainty, distributions, and data-based decision making. This, in addition to simple arithmetic, will make our kids ready to interact with Artificial Intelligence in the world, as experience has shown that people who absorb these basic data skills are good at adapting and making good use of Artificial Intelligence technology. Furthermore, children need to understand that Artificial Intelligence can assist and provide help in making choices in real life, as well as grasping the importance of ethics with respect to its development.

2.3. The Data-Intensive University: Blending Artificial Intelligence with Higher Education

We live in a world largely influenced by data, where a lot of data is collected and processed every day. At the same time, we live in a world of shortening attention span, which makes it harder and harder for any educational institution, but particularly for universities, to educate and conduct the research needed to fulfill their missions. In light of these transformations, how should universities evolve? The “Data-Intensive University” was proposed as a framework for higher education to adapt to the Artificial Intelligence and data era.

Many traditional concepts of the university should be challenged: the chapel or the library is no longer the center of the university. Classically, university is a place for the teaching of knowledge, as well as for the creation of new knowledge. In modern university, this clear interpretation is lost.

The biggest change in the concept of university was the change from pre-industrial revolution universities to modern ones, where experimental research became much more important, and was combined with the concepts of the English college and the American Research University. After the “theoretical” and “experimental” paradigms of research, in the last years of the 20th century and the beginning of the 21st, computational power again introduced another important change on how research was done at universities.

Finally, we have come to a moment where data has become the 4th paradigm of research (theoretical, experimental, computation, data-intensive). In the tech age, where data is readily available with increasing rates of production, *we need a data-intensive research university running data-intensive science, which can help us advance our knowledge of the universe and the human being.*

Universities as they existed previously have created wealth, but there is great inequality. For the data intensive university to become better than the previous version, today we need to ensure equality of access to computation and data sources, as the value of Artificial Intelligence does not generally lie in the algorithms but rather in the data itself and the possibility to compute it. To tread this path towards the data-intensive university, important investment in digital infrastructure will be needed, otherwise universities will not be able to keep up with the data-based research done at private companies.

3. The Long-Term & Philosophical Perspective

3.1. The Minds for the Future

Although the main psychological studies developed by Howard Gardner point to seven and even nine different intelligences or cognitive capacities in the human brain, *when thinking about how to design Education for the Future, policy makers can work with the broader concept of “mind” rather than the seven intelligences.* Developing a “mind” entails combining several of those intelligences in a way that suits a specific job and gives the person the capacity to be employed, interact with the world and become productive for society.

When thinking about the future, there are five minds which need to be fostered in younger generations through education if we want them to succeed in the coming future. These are the “disciplined mind”, the “synthetic mind”, the “creative mind”, the “respectful mind” and the “ethical mind”.

The “disciplined mind” is related to the gaining of expertise in an area of knowledge and therefore relies on memory and systematic effort to be developed. The “synthesizing mind” is one that will enable people to cut through the clutter in these times of information overload and to be able to extract key important messages that really matter from any kind of communication. The “creative mind” is the one needed to be able to create new knowledge, new products or new processes, and will be a key differentiator from machines in the era of Artificial Intelligence. The “respectful mind” is related to empathy and tolerance, and is increasingly needed at a time of globalization in which, finally, minorities are starting to reach greater levels of equality. Finally, the “ethical mind” helps individuals to take a step backwards and understand whether their work and actions are consistent with their values, and to be able to distinguish the good from the bad.

Of special emphasis should be the power and importance of the synthesizing mind and how it could be fostered through education. In the era of fake news, shorter attention span, social media and massive content and information consumption, there is no doubt that developing this specific mind is a requirement for any individual to succeed personally and professionally.

Great synthesizers come from any area of knowledge and expertise. For instance, Picasso’s *Guernica* is a great visual synthesis of the Spanish Civil War and captures the essence of the 20th century. Further, synthesis comes in many different shapes and formats: TED talks, tweets, textbooks, etc.

However, it is important to realize that not all syntheses are good, and therefore this dimension of the mind must be taught and learnt in the right way. The first requirement for achieving a good synthesis is to establish a clear goal. Then, information must be gathered, often in larger quantities than what is actually needed. At this point, different methodologies exist, including narrations, maps and metaphors, useful for any project aimed at synthesizing.

When teaching the “synthesizing mind”, educators need to bear in mind the different threats which can affect a synthesis: too broad, too mired in details, improper conceptualization, improper execution, inappropriateness for a certain situation, insufficient attention to feedback, aspiration for creativity, etc.

To synthesize for the future, words such as “inter”, “multi” and “meta” need to start appearing in these syntheses, as the growing complexity of the world requires higher levels of abstraction and combination to create meaningful syntheses which can lead to the right conclusions.

In the 21st century, Apps are one of the best ways to synthesize, as they enable us to avoid remembering facts which are not necessarily useful, such as routes or calendar appointments. There are many apps for synthesizing, so we just have to make sure that the app we choose is appropriate for our synthesis.

The only big question regarding synthesis in the coming years is whether Artificial Intelligence could become capable of generating better synthesis than us.

“There exists something beyond human rationality which science cannot answer.”

3.2. On ‘Truth’: A Philosophical Look at Biased Reasoning. Preparing Future Generations for the Information Avalanche

We live in the era of “post-truth”, a time in which facts are less relevant for swaying public opinion than appeals to human emotion.

Today we live in a world where objective inquiry is being attacked. We live in a world where it is easy to make objective inquiries, but people no longer undertake them, even if it just requires asking Google.

There are vulnerable populations who are particularly undefended in front of the “post-truth” era: young, naive inquirers. We need to emphasize the importance of educating children, fostering their critical thinking and enabling them to distinguish fake news from real news.

“Post-truth” is associated with postmodern philosophers like Richard Rorty and Jacques Derrida, who emphasized the omnipresence of “strategies of interpretation”, many of which aimed to lead one to truth.

A lot of politicians still push for content in education, but this is a huge error. Education should be mainly about acquiring the capacity to reason and infer, so that children can learn what they still do not know, and they may become capable of discerning the good from the bad and the true from the false. Epistemology and reasoning, for instance, should become part of the curriculum.

3.3. Staying Rational –The Perils of Religion for Human Advancement

A well-known science professor, also a prominent atheist who sees religion as an impediment to the full investigation of reality, used his speech as an opportunity to assert the ascendancy of science.

The deepest understanding is to be found in the sciences, he claimed, which cast their penetrating gaze into the fabric of society. We stand in awe at the wonders of the world, which only science allows us to better view and understand. It is essential that we share our knowledge of the workings of the world, that we encourage to search for insight. There is nothing in the world that the scientific method cannot illuminate, and it is essential that science be at the heart of any future vision of education. Progress in science springs from imagination, but imagination alone is insufficient for good science. Technological innovation is another essential factor.

In contrast, religion was presented as the ultimate fake news, though some think it is one of the great modes of understanding, and a way of providing purpose in the world. Religion closes minds and inhibits deep understanding, providing interpretations of the world that are very easy to accept blindly. Some religions blatantly refuse to accept a true understanding that comes from science. Religion, he continued firmly, contaminates minds, constitutes the antithesis of science and scorns the power of human understanding. Religion is for brains too puny to achieve understanding, whilst science is a true and abundant source of understanding.

In describing his vision around the future of Education, all scientific advances are welcomed, to the extreme that the sooner robots eliminate teachers, the better. Perhaps the professor, himself the author of many renowned chemistry textbooks, was now fatigued by many years of teaching, and had consequently begun to advocate a vision of academia where researchers are left to discover without the burden of teaching.

Members of the audience challenged some of the speaker's bold assertions, suggesting discoveries often come from intuition, and that there exists something beyond human rationality which science cannot answer, mainly relating to the origin of the world and the destiny of human life.

4. The Political Economy of the Future

4.1. Was Milton Friedman Partially Wrong? Economic Prosperity, Welfare and the Role of the Private/Public Sectors. A Leap Forward in Governance.

There is a key assumption about the way that a business should operate, which is commonly accepted and which few people challenge: that profit should be maximized. This assumption is the basis for Friedman's argument that companies should maximize profit in the interests of shareholders (the so-called fiduciary obligation), whilst ethical questions should be left to individuals and governments.

For instance, Friedman argues that companies should not give to charities but they should have the shareholders' interests entirely at heart. If they make more money, the shareholders should have greater dividends and they can choose what to do with that money, giving to charity if they so wish.

A counter-example was then given to break down Friedman's argument. Imagine, for instance, you are a shareholder of Walmart. Walmart has, at times, sold high capacity magazines in various stores in the US, of the sort used in mass killings. This may well be good for profit. If it is good for the bottom line, then Friedman would argue that we should let Walmart sell guns, maximize profits, give more money to shareholders and, if they care about gun control, they can give their dividends to gun control organizations. The key point here is that it is far more costly to undo the consequences of gun control than to prevent it in the first place. The same point can be made about the pollution of a lake, where the cost of cleaning up the lake far exceeds the cost of preventing its pollution by technology in the first instance.

One of the speakers argued that consumers are willing to take into account the negative externalities of consumption, in their own consumption decisions. For instance, when

buying chicken from a free range farm, they are clearly considering social factors. We clearly internalize externalities in our private lives, and we act on our ethical concerns in consumption. Hence, if we are prosocial in our private lives why would we not want the company we invest in to become prosocial as well?

The point is that Friedman's view is quite restrictive to the case of separable activities, where we can separate money-making and ethical activity. Because these two are inseparable, companies should maximize shareholder welfare, not market value. Thereby, a radically new interpretation of fiduciary duty for a company's board and for mutual managers was given.

Moving onto the practicalities of the argument: how then can a board maximize shareholder welfare in practice? How can the board find out what shareholders want? The board cannot possibly consult shareholders about every decision, but shareholders should be able to vote on corporate decisions with major social consequences. Indeed, technology makes it easier to consult shareholders. Imagine an app that allows shareholders to swipe one way or another, thereby integrating social welfare considerations into company decision-making. Or consider an index fund that looks like any other index fund but says that it will vote against guns and ammunitions. Or imagine a freedom fund that will fight against dictatorial regimes. This is profit maximization, subject to social welfare constraints by shareholders.

Current legislation in the US makes it difficult for social issues to be put up for shareholder vote. The SEC has formally not been so sympathetic to this suggestion. The only protest option is thus divestiture, but this could put the stocks into the hands of people who are not socially conscious, who will pollute more, and are happy with benefiting from gun sales at the expense of the victims of mass shootings. Meanwhile, companies often justify their immoral actions by referring towards their fiduciary duty to shareholders to make as much money as possible.

4.2. Beyond Economic Development: the Role of Civil Society and the Private Sector in delivering Economic Advancement

The Open Society Foundation is one of the largest private foundations in the world with an annual budget of \$1bn, which is disbursed mostly in the form of grants to civil society, in service of their mission "to build vibrant and tolerant societies whose governments are accountable and open to the participation of all people."

This Foundation has a new global program focused on economic advancement, where they measure the impact of their investment funds not in terms of profit, but social and economic outcomes. In doing so, they have faced the question: what is the role of economics and what is the role of civil society in achieving its objectives?

There is certainly a consensus around the idea that we are at a deeply problematic and confusing moment in history, a time of huge promise and great disappointment: we now have greater technological capability and economic resources at our disposal, than at any time in human history, and yet we see signs all around us that the traditional sources of societal solutions—politics, philosophy, religion and economics—have all failed spectacularly to deliver their various promised lands in the 20th century.

As a society, we have moved from the problem of insufficiency (not having the raw materials or resources to address our problems), to the problem of ignorance (not possessing the knowledge or technology to address our problems), to the problem we now face of ineptitude (where we possess both the resources and knowledge, but are unable to organize ourselves to solve our problems). Education, and in particular the problem of values and citizenship, is a key method through which we can go about addressing this ineptitude. There is a consensus that economics has something to do with the majority of the problems we face today, although we may disagree on the degree to which its contribution is critical.

“We have lost the notion of economic growth and development as being of instrumental value—that it is only useful in the measure that it enables and serves the development of human capacity and the advancement of society.”

In light of the loss of the kinds of security provided by robust welfare states, by steady jobs, public goods, etc., we try to recreate a lost economic paradise. But what if this solution proves too simplistic a way of seeing things? Are we confusing the loss of things such as decent wages, or robust public goods for the loss of what accompanied them: a sense of belonging, a sense of shared purpose? We are prone to that confusion because our understanding of what the economy is and should be, and its role in shaping human well-being, has become increasingly narrow and insulated.

We experience a global disillusionment, but the North and the South have come to this by different paths. But irrespective of these paths, we have come to a point where economic development is largely seen as a development of intrinsic value, an end in itself and an absolute good. *We have lost the notion of economic growth and development as one with instrumental value—that it is only useful in the measure that it enables and serves the development of human capacity and the advancement of society.*

What we require is not just re-connecting economic growth or even inclusive growth with democracy. What has been lost is an older and deeper way of thinking, relating to how economic relationships and new technologies connect to not just economic anxieties but to a sense of belonging. We have a moral duty to build a coherent society where our economic decisions are in accordance with our ideals, and our aims are matched by our actions. In this framework, our task is to not just reduce economic insecurity, but to address how the economy feeds into how people feel as citizens, how they understand their rights and responsibilities, how they commit to tolerance or dialogue and understanding even as they feel a sense of power. And thus, our goal should be the advancement of society rather than the development of economics for its own sake.

The reason why the Open Society named their program as the *Economic Advancement* program, not the *Economic Development* program, is that their focus would remain

on those forms of economic activity that enhance a much richer sense of social welfare, one that especially includes meaningful opportunities for community, social and political participation. In the Stanford Social Innovation Review published recently, Mark Kramer included this quote from the Universal House of Justice: “social change is not a project that one group of people carries out for the benefit of another.” One of the great problems of traditional economic development projects in the development infrastructure has been to treat their target communities as passive beneficiaries rather than active protagonists of their own development.

Without participation, without the active voice of civil society, no amount of growth or economic development will address the problems discussed at the outset. Without meaningful participation of the kind that can be facilitated through engagement with civil society in various forms; without discourse that recognizes the agency and voice of all people; and without education of the sort that we envisage here that focuses on values and morals, we will have only economic development, and not economic advancement, and we will find no solution to the current crises that we face.

4.3. Education and Economic Prosperity

Academic research on economics has undergone a drastic shift in the past few decades, evolving from a theoretical type of science, similar to mathematics or physics to a more empirical science, largely based on statistics, using methodologies coming from clinical trials.

In the project ‘Deep Impact’, machine learning has been used to classify academic work on economics. Machine learning achieved 87% accuracy in this classification, compared to the 85% accuracy of human classifiers. Out of the top ten cited papers in the 70s and 80s, there was only one empirical paper, now there are up to six. For instance, labor and development economics have gone from 60% papers presenting empirical contributions to 90-100% basing their findings on empirical analyses rather than simply theoretical proposals.

This trend shows that economic research has changed a lot and has become more grounded in the world. It is also reflected in the fact that other fields, ranging from psychology to medicine, have started citing economics literature far more often, clearly due to the empiricism of this new approach.

However, this change in economics research has not reflected in the way economics is taught at schools and universities. In the ’60s and ’70s, complicated mathematical models, including multilinear regressions and similar ones that were supposed to model the economy, were commonly taught in economics. This type of thinking is still very present in today’s way of teaching economics.

This is very different from empirical work researchers do today, which likely starts with specific causal questions and then uses statistical methods to answer them. For instance, in the ’70s, economists would attempt to model the school system with complicated regressions. Thirty years later, in 2002, Dale and Krueger wrote a paper focused on the effects of college characteristics on post-graduate earnings.

Therefore, one can easily conclude that there is an important need for change in the way Economics is taught if we want an easier transition from Economic studies to Economic research.

4.4. Role of Public Investing in Developing Skills and Innovation

Based in Luxembourg and now 60 years old, the European Investment Bank (EIB) is the biggest multilateral development bank, twice as big as the World Bank, which is increasingly focusing its efforts in developing human skills and innovation as the pillars of its strategy. The role of this type of institution goes beyond pure financing to the stimulation of crowd behavior to invest in the right type of products and projects.

The biggest challenge of this institution and others which seek to finance innovation is to do two things at once: to fix issues of recession on the one hand, and to finance the R&D necessary for innovation to appear, on the other.

The investment situation in Europe is quite dramatic. Despite the good news of economic recovery, European investment is 10% below the investment levels of 2007, and their American counterparts are especially lagging in digital investments. There is an annual investment gap of €130bn, compared against the pre-crisis level, and to reach the EU goal of 3% of GDP invested in R&D, an additional €140bn is needed per year.

There is a special division of the European Investment Bank dedicated to the growth of SMEs. It is important to find a way to sustainably finance them, so as to enable those companies to focus on their growth rather than on chasing investors.

There are many important projects being supported by the EIB, including the European research infrastructure (CERN), as well as private companies including Spotify and Skype, or public projects abroad such as the Ethiopian telecom network.

On the borrowing side, the EIB helped develop the market for green bonds and is currently helping build social awareness around bonds fostering the SDG objectives, including access to water, education and health projects.

As far as the SDGs are concerned, it is important to build an environment for sustainable investments and make efficient use of many financial instruments. Amongst the greatest contributions of the EIB and other supra-national institutions such as the IMF, is the mitigation of financial volatility and a focus on the sort of needs that are most urgent. The African continent has to become a center of particular focus as it has a lot of challenges to face. If nothing changes, nine out of ten of the poorest people in the future will live in Africa.

There is enough money in the world and it has been demonstrated in many cases that making money is compatible with having a good impact: it is just about making it flow in the right way.

5. The Pedagogical Perspective

5.1. Reinventing Education: École 42, a Digital Transformation in Education

École 42 is a computer programming school based in Paris created and funded by French

telecommunications billionaire Xavier Niel. The mission of École 42 is to help address the lack of IT professionals in the world through an innovative teaching model based on collaboration and project-based learning.

The school does not require a degree for entrance (approximately 40% of students do not have the French equivalent of a high-school diploma) and it fully funds the tuition of any accepted candidates; these are selected through a blind application process involving online tests and a peer-learning exercise known informally as “the pool”.

The school grants students the flexibility to complete the course at their own pace, but many receive employment offers mid-program and choose to pursue formal work without finishing the degree. According to the leadership of École 42, the number of jobs and internship opportunities extended to students is roughly double the total number of the student body. École 42 does not yet collect data to assess ethnic, gender, sexual, and socio-economic diversity, but this is very much on the agenda going forward.

With the establishment of similar schools in Brussels, Amsterdam, and Moscow, École 42 hopes that other cities are inspired to implement this educational model to strengthen the digital economy of their countries.

5.2. Assessing the Quality of our Education

In the era of Artificial Intelligence, students need to be able to extrapolate knowledge, not repeat. Content is important, but being able to design experiments is more important. It is really all about competencies. Indeed, within the PISA (Program for International Student Assessment) Global Competency Framework, which the OECD has developed, qualities such as empathy and creative thinking are of essential relevance.

The PISA assessment values the capacity to think like a mathematician or scientist. To perform well in a specific test takes several months, whereas to teach someone to do well on a test of multiple competencies such as the ones discussed can take several years. When we look at the PISA results, we see a correlation between greater stability and better educational results. Policy coherence is very important for education. Countries with greater systemic coherence rank higher.

PISA is still at the beginning of its framework development for creativity and cognitive science. There is a real need for teaching empathy, with some countries doing better and some doing worse in this respect. Empathy is absolutely essential to education right now, and the learning environments we create can make a huge difference in our willingness to engage, to work as a team, and to empathize with one another.

Whilst competencies like creativity or empathy are much harder to quantify, their measurement is key to the future of education, as things that are easy to teach and easy to learn will be learnt by Artificial Intelligence. Meanwhile, it is more important than ever to teach and learn complementary skills which machines cannot learn, and which only humans can thus provide.

The example of literacy is very illustrative in this distinction between what Artificial Intelligence can learn and what humans should be educated on. A few years ago, literacy was simply a case of extracting information, but Google now does that for us. Now, literacy is more a process of transposing viewpoints, discerning tensions and dilemmas, and distinguishing truth from falsehood. Being able to think for oneself is the sign of moral and intellectual maturity.

What is increasingly important is the capacity of students to anticipate and look forward, and to think about new ways of working, rather than just absorbing knowledge. The practices of anticipation and reflection are highly valuable. However, the time students have is limited, hence the need to balance between breadth and depth of curriculum. Further, assessment technology is improving our possibilities massively in being able to formulate a system that best serves the next global generation.

Across different countries we see different strengths and other capacities somewhat lagging behind. For instance, China and Japan came out very strong on individual problem solving skills, but then scored low on collaborative problem solving. What is also interesting is the difference between countries' own assessments of their ability and their actual performance. For instance, when we survey teachers in the United Kingdom, they believe students ought to be taught to think independently, yet Britain is at the very top of the list of countries when tested for rote memorization, with Switzerland, Poland and Germany memorizing the least and fostering an attitude of independent thinking. Indeed, more generally, the United Kingdom has the largest gap between intended and implemented practice. China, surprisingly, actually falls somewhere in the middle of this measure.

The above information shows how the data we gather often contradicts our beliefs. Our stereotypes are further contradicted by cases such as Singapore. *We might think that educational systems that are very content-focused lack procedural quality, which is to say, the ability to understand methods, rather than simply regurgitating information.* If a course is very high in content, there is a risk of lack of procedural quality. In Singapore, however, the educational system is better than average in terms of content, but even better relative to the average, in its procedural quality. Another interesting insight from the data was that greater poverty of resources is not the be all and end all. For instance, the lowest 10% of the performers in Shanghai in mathematics outperformed the top 10% in the US. The results from the OECD data also caused great shock to the German educational system, clearly revealing a certain neglect for students of lower income and immigrant backgrounds. There is huge room for improvement in this area, with the revelation of such clear data-driven findings enabling a more urgent response.

5.3. A Learning Revolution through Technology

In a Scandinavian class, a test was made in which all students answered class questions and performed assignments on their own personal school laptop. The program they used fed live data back to teachers, who in turn, were able to infer achievement, performance and effort from this data. Is this the future of Education?

Indeed, at the Altius Conference, several illustrative stories similar to the one above were described to show how teachers can be empowered through technology to better educate their students. For instance, a Finnish school teacher renowned for the success of some of his methods enables students to give answers with their smartphones to certain questions which they read off an interactive whiteboard. The data is fed back personally to the teacher, who can see what answer each student has given and why. What is so interesting about this teacher's attitude is that, if a student falls behind, he is able to question the exact nature of 'behind'. Everyone is different, after all, and what is important is not what has happened in the past, but rather where one is headed next. This teacher is of the view that we should delete the idea of competition from education. Instead, we should create environments where students can fail without fear. More importantly, technology is being used to enhance and make competition more excruciating, but not to reveal information that can help the teacher in personalizing each student's experience, and help him or her to achieve success on his or her own terms.

Also in the Nordics, this time in Denmark, a teacher artificially created two identity groups, which were given different beliefs or values that they had to defend in the context of a class debate exercise. The teacher only intervened in this discussion with open questions, rather than with the idea of trying to drive a correct answer in the debate. Schools are the only public spaces left in which we can undertake an inquiry into our shared beliefs with others. In a world engulfed by technology, we ought to ensure that these public spaces remain a part of our educational experience, alongside the emotional intelligence and open-minded thinking that surely result from them.

What all these examples clearly show is that, *with thorough research and investigation, technology can enhance and recreate our educational systems, whilst the use of technology has to go hand in hand with certain values that would ensure the development of qualities and skill-sets that technology, on its own, cannot deliver.*

We are also to be admonished for being wary of educating solely with technology, as there are many aspects of education which Artificial Intelligence cannot substitute and where human contribution is key. Furthermore, it is the work of our generation to elevate the teaching profession, and to work on developing the political and cultural environment required for educating the next generation responsibly, in a way that would hopefully foster a more equitable world, not just a technologically more enhanced one.

5.4. Education for Mathematics and Science

It is clear that, in a world changing this fast, the role of Education must be to produce creative, flexible thinkers. We have seen, in recent years, an increase in the demand for STEM-educated people, which makes the teaching of mathematics and science essential for the development of future generations.

In this sense, there are several trends in the teaching of mathematics and science which are worth analyzing:

- An increasing focus on reasoning and inquiry in both mathematics and science

- A focus on problem-solving learning, which is thought by most to be a good pedagogical procedure
- The increasing development of digital tools, particularly to teach mathematics
- An adaptation of the teaching of mathematical concepts, clearly impacted by the increasing relevance of Computer Science
- Growing differences in the motivations and attitudes towards studying mathematics and science beyond the compulsory age, with much greater interest among people with higher socio-economic status, as it is clearly related to higher future earnings

Indeed, Conrad Wolfram described mathematics as the anchor subject for computational thinking, which positions it as key to the development of younger generations who live surrounded by technology and digital tools.

However, one might wonder what politicians could be thinking when they design the mathematics curriculum, which is still too focused on mathematical computation. Instead, it should be focused on mathematical literacy, which is the capacity to formulate, employ and interpret mathematical reasoning, to describe, explain, and predict well-founded judgments. In the same vein, our curriculum still lacks a lot of scientific literacy: reasoned discourse and explanation, design of scientific enquiry, interpretation of data, etc.

This distinction between learning to think and learning content is the key to the future of Education. In the current “shadow ecology of knowledge”, a situation in which children and young adults are sharing knowledge in an unstructured way, from using technology to watching YouTube, it is more important than ever to teach young people critical thinking and reasoning.

6. Final Remarks

The aim of this paper is not to provide the final solution to a transcendental problem, but rather to open the minds and spirits of the readers to important questions and create in them a need to solve them.

The work required for implementing the very innovative methodologies, competencies and curricula we envision is enormous, and it involves a great and heterogeneous variety of actors and institutions. Moreover, the urgency for a change in education is being put forward, as the longer we take to reform the system, the more people will fall behind the technological revolution we are experiencing.

Major questions arise in light of the analysis of these transformations: how to educate and empower citizenship; the need to redefine human values; how to develop critical thinking and understanding in our contemporary societies; the future of educational institutions amid the rapid economic and social transformation enabled by technological disruption; training and instruction to prepare for increasingly complex economies and societies; the prospects for a new paradigm of national and global governance... All these questions point to a central theme: that of the empowerment of the human mind, to build on the benefits of the Age

of Artificial Cognitive Machines, while overcoming the challenges of large scale automation and the disruption of communication technologies: the ‘machine’ as a means to augment rather than substitute human potential.

The problem of ethical values in education is certainly one of the most relevant issues for future discussions on the nature and scope of education. Indeed, the standing questions are what kind of minds we need in order to address the emerging challenges of this interconnected world, in which abundance of information does not necessarily lead to an adequate development of human capacities, and whether we will bring about a new renaissance in human thinking.

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The Politics of Connectivity

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Abstract

This article is an exploration of humanity's evolution from our earliest expansion out of Africa to today's colonization of planet Earth. It traces how humanity's success was predominantly based on our ability to bond, communicate, share and cooperate in ever larger organizational forms. Competition was also key, along with individual creativity, as our forebears developed the technological prowess now dominating all species and ecosystems in today's Anthropocene age. The article also explores why our cognitive abilities have lagged behind our technological reach, so that humanity now faces its final existential challenge: our self-inflicted crises of biodiversity and species loss, climate change and our behavioral and cognitive limitations. We possess all the technological and organizational means to create our next stage of evolution, as embodied in the UN Sustainable Development Goals (SDGs). If we reach the maturity and wisdom needed to overcome the global political and educational imperatives for our survival, we might then graduate to become a suitable inter-planetary species.

We humans are facing ourselves as we deal with all the crises we created with our global technology and connectivity.* The old adage “we can't live with each other and we can't live without each other” took on a new meaning as we evolved over millennia from small roving bands of nomads to big city life, and now as a 7.5-billion-member global human family—all thrown into new relationships in today's 24/7 technological connectivity.¹

Today we are facing up to the oldest puzzle of our species: individual freedom and rights in our various relationships with community, groups and societies within the now global context. Individual action, expression and creativity flowered as our species evolved—driving our societies to colonize every region of our home, Planet Earth. This triumph of humanity over other species was achieved through ever more sophisticated, cooperative forms of organization and social innovation[†]: from settled village agriculture to towns, cities, guilds of craftspeople, sharing knowledge, the rising scale of technologies based on scientific research—all expanding human awareness and cognition as our forebrains developed.

Thus, humans have always been collaborating in groups and extending their forms of organization and societies. Globalization began when humans trekked out of Africa into

* See for example, Capra, F. *The Turning Point* (1981) and my *The Politics of the Solar Age* (1981). Both identify humanity's crises as rooted in our limited perception.

† The Darwin Project (www.thedarwinproject.com) highlights Charles Darwin's view that humanity's success was due to the ability to bond, share and cooperate.

Europe and Asia, and crossed the Bering Strait, thereby populating the Americas. Throughout, humans have always needed each other. Our biology dictates cooperation, since humans are not born with the ability to take care of themselves, as with some other species. Our young are born helpless and require decades of care to reach adulthood.² Today, when jobs require ever more knowledge to compete, reaching full autonomy takes even longer. The human brain is not fully formed until age 25.* Thus we see Margaret Thatcher's error in proclaiming "There is no such thing as society ... only individuals."[†]

These kinds of ideological struggles peaked during the Industrial Revolution about who owned the new technological means of production: the lathe, the spinning jenny, factories, steam engines and railways, canals and the new infrastructure. How should the fruits of productivity be shared? Which activities and assets should be controlled by individuals as private property, others as public amenities vital to the society?[‡] Battles raged between the "isms": communism, capitalism, socialism, agrarianism, libertarianism, continuing well beyond the Cold War of the 1990s. Today in the USA, we face up to racism, sexism, ageism and elitism, while property rights clash with amenity rights. Tea Partiers and Occupy Wall Street protesters join in opposing big banks, while their rich executives fight against "big government" and clash with civic groups focusing on inequality. The "99%", justifiably feel left out of productivity gains, join with middle class advocates for fairness, community values of education, healthcare for all and protecting affordable housing, public transit and environmental resources.

Today, advanced societies and their elite are challenged by the new "populism" demanding new and different financial, economic and social reforms and how to create global prosperity with fairness and human development without wrecking our planet.⁴ Thus, the elite are recognizing the truth that we humans are all in the same risky⁵ boat and it is pointless to ask which end is sinking. Extreme individualism and demands for untrammelled free markets find fewer places to colonize. Silicon Valley libertarian billionaires hoping to live on private islands or create them, will face new realities with hurricanes and rising sea levels due to climate change. We are not yet mature enough to be an interplanetary species.

As we are thrown together in new forms of connectivity, we are looking at ourselves and learning to understand our own behavior, brains and cognitive processes. Younger populations embody many new values across race, gender and cultures as "grassroots globalists" sharing, campaigning for environmental causes and social justice.[‡] They are advocating diverse, decentralized societies based on distributed renewable resources from solar, wind and organic agriculture, beyond centralized technologies like nuclear and fossil fueled power plants, industrial monoculture foods and commodities.[§] Ever larger numbers of "global citizens" are joining with them in facing up to climate change, inequality and the need to transform finance and corporations to reflect our true situation on this planet and how our living biosphere is abundantly resourced from the daily free photons from the Sun.[¶]

* Gesell, A. "The Maturation Theory" of child development, 1925, *Wikipedia*.

† Thatcher, M. "1979 Conservative Party Manifesto", Politics.co.uk

‡ See for example Henderson, H. "Grassroots Globalists" *InterPressService*, 1993 and www.350.org, www.nexusglobal.org, www.netimpact.org

§ See for example, Friedman, T. "The Green New Deal", *New York Times Magazine*, 2017 and www.greenforall.org

¶ US Office of Technology Assessment, "Assessment of Technology for Local Development" (1980) *University of Florida Press-Ethical Markets* (2015).

We humans are also slowly transcending tensions and earlier arguments between individual autonomy and the need to coordinate our activities to benefit our societies.⁶ Movements of ethical investors are slowly redirecting profit-driven corporations, advertising, news and social media, which are tracked by Ethical Markets in its Ethical Markets Awards and annual Green Transition Scoreboard® Reports.* The \$9.3 trillion of private investments we tracked in 2018 in green sectors worldwide and the trans-partisan support in the US Congress and Senate illustrates the existence of a broad national coalition for the Green New Deal.† Backlash from Congress members representing fossil and nuclear interests raised familiar fears of cost and “socialism”.

“Possibilities for progress envisioned by Charles Darwin are advanced by human ability for ethical behavior and empathy, based on biologists and endocrinologists’ discovery of hormones, oxytocin, serotonin and the brain’s mirror cells. All this research invalidates most of the so-called “economic laws” still in textbooks taught in many business schools.”

We have created many such coordinating processes ranging from various kinds of families and communities and their values to social norms of behavior, religious belief systems, altruistic philosophies and charities, cultural narratives, political parties and coalitions. Networks facilitated by the internet, cellphones, and personal media enhance trust-building, transparency, legal and social contracts. Clubs, associations, corporations, advertising and market messaging extend connectivity. National and global research groups, alliances, including the European Union, ASEAN, MERCOSUR, now collaborate in all the international agreements, peace treaties and space agencies under the United Nations umbrella.‡

All this social coordinating has developed with ever more protection of the sanctity of individual autonomy, from the Magna Carta and habeas corpus English laws settled in 1215, to the Universal Declaration of Human Rights in 1948. Thus, individualism is affirmed and best recognized by community validation. Individual achievements are honored widely, by awards, academic degrees, while good behavior, volunteering and altruism are celebrated, if not monetarily rewarded, in most communities worldwide.⁷ Individual rights together with our human responsibilities are coded in the 16 Principles of the Earth Charter, ratified in 2000 by civic groups, politicians, municipalities, companies and academia worldwide (www.earthcharter.org).

Thus, human connectivity and ethical progress continue even while violence, cruelty, domination by “might is right” methods are ostracized and regulated where possible. But

* Ethical Markets Media, www.ethicalmarkets.com Green Transition Scoreboard: 2018

† Rep. Ocasio-Cortez, A., D-NY, 116th Congress, “Resolution for a Green New Deal” <https://www.congress.gov/bills/116th-congress/house-resolution/109>

‡ The United Nations was founded in 1945 (www.un.org)

these primitive behaviors still exist along with exploitation, threats, imprisonment, torture, still employed by dictatorial regimes. Often they are driven by our wide misunderstanding of money systems, and how currencies created by governments to facilitate their economies, also control resources and populations, and are widely misused by unregulated financial exploitation.* Money, a special form of connectivity, is not wealth, but simply a tracking and scoring metric, which is mystified and thereby mistaken for the real wealth of human creativity and our abundant planet.† Currencies, including blockchain-based cryptocurrencies, are social protocols, the prices of which are based on network effects and fluctuate with levels of users' trust.⁸

Research by scholars from Russia's Peter Kropotkin (1902) and Pitirim Sorokin (1957); US psychologists Abraham Maslow (1968); Clare W. Graves (1970); Steven Pinker (2011) and Daniel Kahneman (2011); my futurist colleagues: Barbara Marx Hubbard (1993); Jean Houston (1982); Jeremy Rifkin (2009), Donella Meadows (1972), Elise Boulding (1990); Alvin and Heidi Toffler (2006) and others envision humanity's future possibilities. Sweden's statistician Hans Rosling (2018) as well as many philosophers and ethicists worldwide have tracked the long painful progress of human knowledge, science, and technology toward greater wisdom. Possibilities for progress envisioned by Charles Darwin are advanced by human ability for ethical behavior and empathy, based on biologists and endocrinologists' discovery of hormones, oxytocin, serotonin and the brain's mirror cells. All this research invalidates most of the so-called "economic laws" still in textbooks taught in many business schools.‡ Yet politicians still parrot defunct economists to resist any social reform programs with the familiar "Where's the money coming from?"

At the deepest level, we humans are growing up while the planet serves as our programmed learning environment.⁹ We are overcoming infantile fantasies and accepting our responsibilities for the changes we have created and our interdependencies, within our families, workplaces, communities, as well as our countries. Nation-states too are facing their interdependence created by human technologies, global corporations and financialization with round-the-clock high-speed trading, currency speculation and derivatives. The global transition is underway from fossilized industrial economies to the inclusive, cleaner, knowledge-richer, greener, sustainable societies envisioned in the UN Sustainable Development Goals (SDGs)[§] of the planetary Solar Age.

In today's Information Age, we all live in "mediocracies," whatever our ostensible form of government is, and participate in their "attention economies".¹⁰ We all face similar threats to our hard-won democracies from big data, biased algorithms, control over our personal information and struggle with internet issues: privacy, surveillance, hacking, fake news, robotization and other profit-driven digital takeovers of many sectors of our economy.¹¹ We find ourselves responsible for devising new forms of work, incomes, self-employment in

* Brown, Ellen, *The Public Banking Solution* (2013); Silver, N. "Finance, Society and Sustainability" (2018); Pettifor, A. "How Governments Finance Their Spending", blog, Oct, 2018, www.annpettifor.com; Mazzucato, M. "The Value of Everything" (2018); Dowbor, L. "The Age of Unproductive Capital" *Cambridge Scholars Publishing*, UK. (2019)

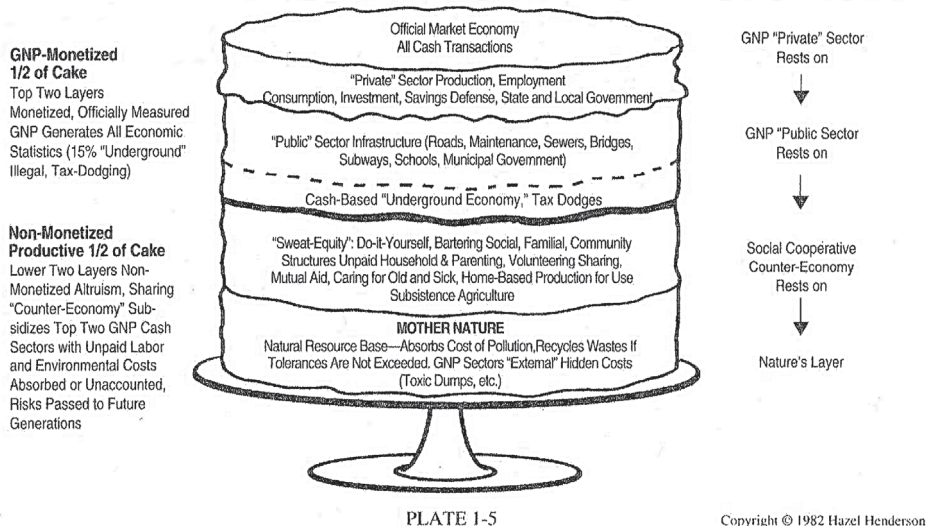
† Hazel Henderson, "Money is not Wealth: Cryptos v. Fiats" (2018) <https://3blmedia.com/News/Money-Not-Wealth-Cryptos-v-Fiats>

‡ Henderson, H. "Mapping the Global Transition to the Solar Age". *ICAEW, Tomorrow's Company*, (2014)

§ The Sustainable Development Goals were ratified by 193 UN member countries in 2015

“gig economy” sectors while urging new ways of maintaining purchasing power through universal basic incomes or guaranteed social service schemes to maintain aggregate demand for all the cornucopia of automated goods and services.*

Figure 1: Total Productive System of an Industrial Society (Three Layer Cake with Icing)



Most deeply-embedded in human cultures are the beliefs and narratives that underlie our subconscious cognitive biases and limitations, rooted in our ancient experiences and fears of “the other” tribe, sect, cult, or ethnic group. Behavioral scientists are uncovering these brain structures, endocrine systems, and emotional states and how they shape our social and economic structures.^{12,13} This is helping us understand the motivations of power, ego and domination hierarchies based on patriarchy, gender, race and ethnicity. All this is deeply concealed in economics texts which assume that human nature is based on greed and self-interest in competition for scarce resources. The new understanding beyond scarcity is based in increasingly knowledge-based societies where information is “non-rival”, i.e. if you give me information, this benefits me but you also still have it and our knowledge can be expanded *ad infinitum* by sharing. Meanwhile, obsolete economics textbooks categorize cooperative, caring work in families: raising children, maintaining households, caring for the sick and elderly, community volunteering (assumed as women’s work) as “non-economic” because it is unpaid.

This patriarchal legacy is due to earlier biological conditions of male and female roles and the decades of nurturing needed for human maturation.¹⁴ This circumscribed women’s roles reproducing our species while male skills were honed in hunting, protection of the tribe and territorial conflict. Today, the universal right of habeas corpus to own one’s own body

* Henderson, H “Facing Up To Inequality” (2015) and Skroupa, C., FORBES Interview (2017)

includes all humans regardless of gender (although still not recognized for women by some religious sects). This law needs to be extended to recognize ownership of our brains and information in today's digital societies.* Technologies of contraception and these advances in human rights are bringing women into equal roles in most organizations and societies. Yet we still see the earlier cognitive biases emerging in patriarchal backlashes opposing women's leadership now evident in science, technology, governments, finance, business, law, academia and belatedly in corporations and some male-dominated countries. Anand Giridhararas examines how global patriarchal elite maintain control through markets, networks of corporate and financial executives meeting in exclusive clubs and venues.¹⁵

“We already possess all the technological tools, innovative social strategies and human knowhow to achieve more equitable, sustainable global societies. What we need now are willpower, democratic political leadership and widespread participatory vision.”

Governments and politicians will increasingly face women's demands for relieving their unfair family burdens with more shared family leave, childcare, public social programs, safety-nets, healthcare, education and environmental protection. Patriarchal libertarians, their advocates and organizations, will continue to oppose such government infrastructure they label “The Nanny State”, possibly reflecting their early childhood experiences of “Mommy's” control over them, however necessary.

Examples of these subconscious gender politics were evident in the US 2016 elections, where many older voters (including older white women committed to being housewives, dependent on their male providers) stated that they could not conceive of a woman being president and that they voted for Trump as a sort of “Daddy”. These “Mommy-Daddy” themes and double-standards are still present in US politics, for example, pitting US Speaker Nancy Pelosi against Donald Trump in advertising and campaigns and having the response to Trump's belated 2019 State of the Union speech given by a powerful African American leader, Tracy Abrams. The spectacle of leaders accused of racism and sexism in Virginia exposes the underside of US history—also illustrating how male privileges persist in patriarchies.

A new, deeper, painful politics recognizing our cognitive limitations and biases is now emerging. Our global connectivity at every level is driving all our various extended human relationships toward greater maturity as we recognize that “the other” is now our neighbor. Short-term profit-seeking economic globalization and money-measured GDP growth goals[†] lead to global financialization, which exploits real economies. Meanwhile, entrenched elite and long-standing political conflicts over resources have driven millions from their ancestral

* Hazel Henderson, “The Idiocy of Things Requires an Information Habeas Corpus” (2017)

† Henderson, H. “GDP: Still a Grossly Distorted Picture” *CSRWire*, (2013)

homes looking for safety and a better life.¹⁶ In the USA, we are beginning to acknowledge that the only citizens who can claim original status are Native American people and that we must now learn the full underside of our history, as recounted by historian Jill Lepore in *These Truths* (2018).

The many aspects of global connectivity, with all its promise, will need careful governance, with full assessments of all technological components and their social and environmental impacts, in order to steer humanity toward long term public goals. A hopeful sign of political maturity is the efforts in the USA to relaunch the Office of Technology Assessment (OTA), which collated the best research from US universities, think tanks and other civic and professional groups to inform the US Congress of the likely longer term social and environmental effects of new technologies before they were deployed by profit-making private interests.¹⁷ This kind of assessment might have steered Silicon Valley away from its disastrous business models based on selling users' data to advertisers and markets.¹⁸ The earlier subscription-based models did not require advertising to hype profits to please shareholders. Many such models can be cooperatives or run by municipalities already offering broadband and electricity services. Today, more people are employed in cooperative enterprises worldwide than in all the for-profit corporations combined.* My further assessment of these issues is in "The Future of Democracy Challenged in the Digital Age."[†]

The stakes for our common human future on this planet are higher than ever, and as Albert Einstein reminded us, the race is now between education and survival or extinction.[‡] We already possess all the technological tools, innovative social strategies and human knowhow to achieve more equitable, sustainable global societies.[§] What we need now are willpower, democratic political leadership and widespread participatory vision. The invocation "*E Pluribus Unum*" (out of many, one) may take on global meaning.

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Notes

1. Parag Khanna, *Connectography: Mapping the Future of Global Civilization* (New York: Random House, 2016)
2. Gary Clark and Maciej Henneberg, "The life history of *Ardipithecus ramidus*: a heterochronic model of sexual and Social Maturation," *Anthropological Review* 78, no. 2 (2015): 109-132.
3. Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1944)
4. Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (Toronto: Vintage Canada, 2015)
5. *Global Risks Report 2019* 14th Edition, with Marsh McLennan and Zurich Insurance Group (Geneva: World Economic Forum, 2019)
6. Jaron Lanier, *Who Owns the Future?* (New York: Simon & Schuster Paperbacks, 2014)
7. Jo Leinen and Andreas Brummel, *A World Parliament: Governance and Democracy in the 21st century* (Berlin: Democracy Without Borders, 2018), 68

* UN Year of the Cooperative 2012 www.un.org

† Op. cit.

‡ Einstein, A, "Russell-Einstein Manifesto", July 9, 1955

§ Bushnell, D. NASA Chief Scientist "Broad Band Effective and Affordable Approaches to Climate", *NASA*, Langley, VA. 2019

8. Nick Gogerty, *The Nature of Value: How to invest in the adaptive economy* (New York: Columbia University Press, 2015) www.solarcoin.org
9. Hazel Henderson, *Creating Alternative Futures* (New York: Putnam, 1978)
10. Hazel Henderson, "Mediocracies and the Attention Economies" (2017) *EthicMark* <http://www.ethicmark.org/uncategorized/mediocracies-and-their-attention-economies/>
11. Hazel Henderson, "The Future of Democracy Challenged in the Digital Age," *Cadmus* 3, no.5 (2018): 1-8
12. Paul J. Zak, *Moral Markets* (Princeton University Press, 2008)
13. Daniel Kahneman, *Thinking Fast and Slow* (New York: Farrar Straus, 2011)
14. Riane Eisler, *The Chalice and the Blade* (Carmel: Center for Partnership Studies, 1987)
15. Anand Giridhararas, "Winners Take All" (New York: Alfred A. Knopf, 2018)
16. Daron Acemoglu and James A Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (New York: Crown, 2012)
17. Bill Pascrell Jr., "Why Is Congress So Dumb?" *The Spokesman Review* Jan 12, 2019 <http://www.spokesman.com/stories/2019/jan/12/bill-pascrell-jr-why-congress-is-so-dumb/>
18. Kathleen Hall Jamieson, *Cyberwar: how Russian hackers and trolls helped elect a president: what we don't, can't, and do know* (New York: Oxford University Press, 2018)

The Need for a Global Government: Democracy in the Planetary Age

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Abstract

One of the key challenges of modern times is the increasing gap between accelerating technological innovation and slow political adaptation. Economic, social and technological developments have led to the emergence of an interdependent world system that revolves around the entire Earth. The functioning of this complex system and perhaps the survival of human civilization depend on the provision and management of global public goods. Abolishing nuclear weapons and halting anthropogenic climate change are just two of a myriad of unsolved global challenges and new ones such as artificial intelligence that are emerging rapidly. The enduring fragmentation of the world's political order in around 200 nominally sovereign nation-states makes effective global action impossible. While this status quo represents a threat to humanity and helps erode the institutions of the nation-state, there is a growing transnational elite that benefits from weak political processes and institutions at the global level. Based on their book 'A World Parliament: Governance and Democracy in the 21st Century',¹ the authors argue in this piece that achieving a peaceful, just and sustainable world community requires an evolutionary leap forward towards a federal global government.

Human civilization may not be able to survive if we do not manage to create a global government. This proposition may seem out of place at a time of rising international tensions, nuclear instability, nationalist populism and so-called identity politics which fuel a crisis of multilateralism. Yet, the idea cannot be contradicted; these and many other problems are strongly rooted in the fact that no global government exists.

One of the key challenges of modern cultural evolution is the time lag between rapid technological development and slow political adaptation. The United Nations that represents the best governance model humanity could come up with for the management of global affairs is now frozen in time. Its underlying principle of national sovereignty goes back to 1648, a hundred years before the industrial revolution even started. Yet, today we live in the 21st century, the world population is approaching eight billion and technological development continues to accelerate. Hence, a model of global governance to catch up with the accelerating pace of change is greater than ever before.

1. Addressing Environmental Threats

Humanity now shares a common destiny. Whether they like it or not, all people are now linked together in a shared civilization which comprises the entire Earth. The dangers posed by nuclear war, global pandemics, environmental devastation, or climate change affect everybody. Carbon dioxide in the atmosphere knows no borders.

The human impact on global public goods such as the atmosphere must be regulated so that planetary limits are not transgressed and the stability of earth's ecosystem is not jeopardized. Furthermore, the supply of important public goods like food security or the stability of the financial and economic system depends on how well global structures are working. Regulating research and development in fields such as artificial intelligence, genetics, biotechnology or autonomous weapons must be on the global agenda. Based on the collaboration of 193 nominally sovereign states, global regulation will never work well. Hence the need to move to a model of global government that transcends the boundaries of the nation-state.

“Regulating research and development in fields such as artificial intelligence, genetics, biotechnology or autonomous weapons must be on the global agenda.”

2. Transcending the Nation-state

States can freely decide whether to join or not to join an intergovernmental treaty. There is no way to determine global rules except through inter-state negotiations. The more ‘states’ participate, the more difficult it is to achieve results. As compromises must be reached, the content of treaties often merely represents the lowest common denominator of state parties. In this process, the primary purpose of governments is to pursue what they believe is in the national self-interest. There is no body that represents the interest of the world community at large. Even if a treaty is concluded and ratified, a state can withdraw again. The international order recognizes no higher authority for decision or enforcement. All in all, the international order lacks many of the hallmarks that characterize a functioning legal system, which we take for granted domestically.

Socioeconomic development and political action are no longer connected. The forces of acceleration have globalised and compel the states, in a self-reinforcing dynamic, to push forward their own erosion. Cash flows and commercial entities have no loyalty to any nation-state. Processes of product development and manufacturing are globally networked. A transnational elite has emerged consisting of the owners and top management of transnational corporations, both supported by high-level officials, politicians, scientists, and media representatives who are ready to pursue common economic interests in an environment of weak regulation and poor political processes. The concentration of wealth and global inequality has reached unprecedented levels. The gap between productivity and workers' wages is increasing dramatically.

We are witnessing the emergence of global social strata that are giving rise to vertical social tensions. The dividing line will no longer be between rich and poor countries but between the super-rich and the rest everywhere. The transnational elite exercises a powerful influence. They can play national governments against each other, if need be. National governments face serious limitations to resist the race to the bottom. In former times the creation of powerful nation-states was often driven top-down by the elite. Notions of a global conspiracy to set up a global government are far off the mark. Today, the elite uses the interstate system to their benefit and actually resists the emergence of a global government that could constrain their actions.

“A Tobin Tax on currency transactions or a progressive global tax on billionaire capital will not work with a piecemeal approach.”

In fiscal policy, for instance, multinational corporations and the super-rich are able to avoid paying taxes using loopholes and weaknesses in the international taxation system. Corporate taxation rates and tax revenues continue to fall. This contributes to rising inequality, higher relative taxation of the middle classes, and social tension. Paradoxically, these problems are exacerbated by the nationalist policies they fuel. In the United States, for instance, the nominal corporate tax rate was drastically reduced after the election of Donald Trump.

Efforts to combat this trend in the framework of traditional intergovernmental collaboration have proven ineffective. A Tobin Tax on currency transactions or a progressive global tax on billionaire capital will not work with a piecemeal approach. There are potential funding sources for social welfare measures like a global social protection floor or a global basic income that cannot be tapped.

3. Current Challenges and Pitfalls of the System

Citizenship is connected to individual states and thus citizen rights are exclusive. The promise of the global village is only valid for the rich. In many countries, they can even buy national passports. The carbon footprint of those well off is disproportionately higher than that of the poor. At the same time, the age of Westphalian territoriality has not ended for those at the bottom. Free movement is not for them. Quite the contrary. The planet has never before seen more border fences and walls separating states. In fact, the system of nation-states helps contain populations within state borders, allows to play out workers against each other and to exploit illegal immigrants.

Economic, cultural and social insecurity seems to be a common contributor to nationalist populism as well as illiberal and antidemocratic sentiments. As global forces become more influential, democratic institutions of the nation-state are hollowed out, and people, justifiably, lose trust in leaders' capacity to represent their interests. Even if all the countries in the world were perfect democracies, they still would not be in a better position to steer globalization into the right direction.

The security dilemma, according to which states are pushing each other, in a spiral dynamic, into military spending, research and armament, is inherent in the Westphalian system and strong economic interests are at play to keep it that way. Just as fossil fuel industries and their owners resist decarbonization of the economy, the military-industrial complex resists global pacification. They do not necessarily need war. Military equipment that is developed and produced at high cost does not even need to function properly. But what they do need is the mere possibility of war and a permanent feeling of insecurity. The opportunity costs are massive.

“The idea of humanity’s unity can be traced back to ancient Greek philosophy, the Hindu Upanishads, Tamil Sangam literature, Confucian teaching or the ancient Chinese concept of Tianxia.”

War between nuclear armed adversaries is potentially suicidal as it may lead to mutual destruction. As large-scale conventional conflict can spiral out of control, it is not an option that can seriously be considered in the power rivalries between nuclear states. It still may happen intentionally or by accident. Even a limited nuclear war would have a devastating impact on today’s complex world system.

After the invention and deployment of the atomic bomb, many nuclear scientists argued after the Second World War that a world government establishing a system of collective security with a monopoly on the use of force was needed in order to control nuclear technology and to prevent a nuclear Third World War.

The possibility to strike any state at any time anywhere with a nuclear bomb or conventional missiles has made traditional concepts of sovereignty anachronistic since states, even in theory, can no longer control the use of violence on their territory and potentially can be wiped out. Ensuring a world free of nuclear weapons remains a key argument in favor of a global government.

Once, the internet was expected to be a driver of democratic change and global understanding. Yes, it helped spark democratic revolutions. But it also provided the means for unprecedented state surveillance and systematic control of citizens. In Myanmar, social media was used to incite genocidal violence and it is being used by authoritarian states to project their influence. China’s ‘Great Firewall’ shows what governments can do to cut their population off from free global information flows.

4. Moving towards Equality: Why we need a World Republic

The fundamental values that underpin the arguments for a global government remain as valid as ever. The idea of humanity’s unity can be traced back to ancient Greek philosophy, the Hindu Upanishads, Tamil Sangam literature, Confucian teaching or the ancient Chinese concept of Tianxia. It is the realization of the equal value of every human being and that all humans need to respect and treat each other accordingly, which is at the core of

cosmopolitanism and global citizenship. Morality that is exclusionary because it is only accepted as valid for a certain group is no morality at all. In a coherent ethical system that is based on equality, the same standards must be applied to everyone.

“A federal world republic and a system of multilevel government would bring about a new understanding of sovereignty.”

This was already understood at the time of the French Revolution. For a short period, the French Revolution had a cosmopolitan moment. Liberty, equality and fraternity were ideas not limited to a French nation that did not even yet exist. It was not obvious why the sovereignty of the feudal rulers should be transferred to individual states. At the time, Anacharsis Cloots promoted the indivisible sovereignty of humanity and a universal world republic.

While a world republic would unite humanity as a whole, the constituent subjects are individual persons and the starting point is to respect and protect their human rights as global citizens. Recognizing the equal right of every human being means that all need to have an equal opportunity in shaping the political affairs that affect them all. It follows that a directly elected world parliament needs to stand at the centre of the world republic. At some point this representative body may be complemented by means of electronic direct democracy open to all world citizens. Setting up a world republic with a global government does not mean that separate units would disappear. On the contrary, it would be a federal system of multilevel government. States represent an indispensable level of government and decision-making. Following the principle of subsidiarity, functions and powers would be dispersed vertically between the different levels of government from the local to the global and always at the lowest level possible. In some cases, subcontinental or continental levels of government that lie between the national and global levels may take over responsibilities, too. In addition, states can carry out administrative responsibilities on behalf of the world federation, thus avoiding the creation of a large central bureaucracy.

While the world republic would determine the rules governing the legitimate use of force, it would not have the factual monopoly as certain military and police capabilities would be dispersed following federalist principles. In a system of global fiscal federalism, the power of taxation would also be divided across different levels. A federal world republic and a system of multilevel government would bring about a new understanding of sovereignty. No one has a right to unlimited self-determination or to the unlimited exercise of power, or indeed the capacity for either. All states, institutions, bodies and actors are in one way or another accountable to others and bound up with them. None is sovereign over the others in the classical sense, or can act or be allowed to act as if they were. Sovereignty is always limited. In this sense, we may continue using the term to describe core competencies of the respective levels of government.

Democratic participation and representation of citizens as well as the rule of law, separation of powers, checks and balances and the protection of minority rights would have

to be implemented at all levels. A world republic structured along those lines would put the world's citizens in political control and counterbalance the influence of the transnational elite. This structure will help to protect diversity, pluralism, group identities, traditions and minorities in individual states and across states.

“We need to rally for a bold vision of our common future on this planet and must be ready when a window of opportunity opens.”

5. Converting Ideas into Action

The creation of a world republic means a transition from today's system of international law to world law.² The global government envisaged here may be the result of a consolidation of today's system of global governance into a coherent framework based on a world constitution.* The legislative branch could be composed of a World Parliamentary Assembly elected by the world's citizens (similar to a House of Representatives) and a General Assembly as representation of member states (similar to a Senate). On matters of global concern and based on the principle of subsidiarity, this world legislature would be empowered to adopt framework legislation that needs to be transposed into national law and global regulations with direct and immediate applicability. Today's Security Council could be replaced by a Joint Security Committee set up by the two legislative bodies.

The UN's secretariat and the administrative structure of the UN system can be transformed into a World Commission, acting as an executive branch with cabinet functions. A reformed International Court of Justice can be made responsible to oversee the World Commission, and to ensure that global legislation is in accordance with fundamental human rights and equally applied across member states. Legally it will be necessary to amend the UN Charter and numerous intergovernmental treaties. The goal may be to draft one Comprehensive Reform Treaty that would include all necessary provisions to change all treaties concerned. Proposals to convene a Charter Review conference or a global constitutional convention have existed for a long time.

Authoritarian government regimes represent the biggest obstacle as they oppose any democratic self-determination of their citizens and the advancement of democracy in the world. But it is not only them. Most governments, even if they are democracies, will only take action if they feel it is very popular. While many people indeed recognize their identity as citizens of the world, others are turning to the myth of nationalism and reject global cooperation, let alone global government. What is more, immediate day-to-day issues divert attention from the need of solving the world's structural problem. Finally, a democratic global legal order, with a constitution, a clear structure and division of powers, clear rules

* Based on Andreas Bummel, "A Renewed World Organization for the 21st Century" *Democracy Without Borders* 2018. <https://www.democracywithoutborders.org/files/DWBGCFAB.pdf>

and democratic decision-making processes, is something that much of the transnational elite will consider to be adverse to their interests.

We do not know when the right moment will come. However, there have been many surprises in history that even the best experts did not foresee. That is why we need to rally for a bold vision of our common future on this planet and must be ready when a window of opportunity opens.

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Notes

1. Jo Leinen and Andreas Bummel, *A World Parliament: Governance and Democracy in the 21st Century* (Berlin: Democracy Without Borders, 2018) <https://www.democracywithoutborders.org/world-parliament-book/>
2. Andreas Bummel, "A World Parliament and the Transition from International Law to World Law," *Cadmus* 2, no.3 (2014): 121–28.

Who should Govern on what Principles? The Future of Decision Making Combining Nudge with Scenarios to reach Eutopia

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Abstract

The main aim of this paper is to discuss the theories of decision-making, the problems of predictions and how the tools utilized for the process of decision-making at the macro-level could be enhanced for policy makers in our post-normal times. Decision-making is the process of identifying and choosing alternatives based on the values and preferences of the decision maker deriving from several perspectives (psychological, cognitive, and normative). Decision theory (or the theory of choice) is the study of the reasoning that underlies the choices adopted by an agent. Normative (Prescriptive) decision theory gives advice on how to make the best decisions with a set of uncertain beliefs and a set of values. Descriptive (positive) decision theory analyses how existing, possibly irrational agents actually make decisions (Grunig and Kuhn, 2013). Political decisions or governmental policies are devised using the normative decision theory. The values, beliefs and ideas of policy makers inevitably have a great impact on the formulation of policies. When examining the questions on right and wrong, they will habitually prompt variable answers from different individuals and groups. Therefore, the manner in which governments or institutions, in particular universal organisations, should be governed raises many complex questions. The dilemmas of our time, energy, environment, climate change, food security, and financial security cannot be understood in isolation. They are systemic problems, which mean that they are interconnected, and interdependent (Capra and Luisi, 2014). In a number of situations, political leaders are unable to draw conclusions from facts. They fail to appreciate how the major problems of our time are all interrelated. They do not see how their declared solutions may affect future generations. Yet, if issues are to be viewed in a holistic sense, a further crucial threat of the fashion in which power is distributed would present itself. On occasions, global and national decisions may contradict themselves or periodically, populism might dominate the decisions of policy makers. The world consists of multiple diverse groups; consequently, the governance of humanity is not straightforward. Most people in our modern society, especially those in our large social institutions, use concepts of an outdated worldview; their perception of reality is inadequate for dealing with our overpopulated, globally interconnected world. The age that we live in is more frequently called "post-normal times." It is characterized by complexity, chaos and contradictions (Sardar, 2010). The main aim of this paper is to discuss and assert the need for new alternative decision-making systems which could eliminate the basic deficiencies of the current systems. We need to raise the awareness of people and educate them about

“how they can be more anti-fragile and enjoy the complexity of our daily life.” Modernity has brought significantly enriched improvements into our daily lives but it has also been instigating additional complications. Sequentially, citizens and consumers of today are experiencing a growing sense of alienation, loss of values and flexibility (Zajda, 2009). This is a further attempt to show that reconsideration is clearly needed to determine the relevance of the certainty and stability of the Newtonian paradigm in decision-making and the governance process.

1. Introduction

For some people there is a tendency to believe that globalisation is creating conditions for faster economic growth as a consequence of access to ideas, technology, goods, services and capital. On the other hand, many are convinced that globalisation causes levels of inequality and poverty to increase. Half of the world, which in total is more than three billion people, lives on less than two dollars a day.

Eighty-two percent of the wealth generated last year was accumulated by the richest one percent of the global population, while the 3.7 billion people who constitute the poorest half of the world saw no increase in their wealth, according to an Oxfam Report (Richest 1 percent, 2018).

The UNDP defines “human development” as a “process of enlarging people’s choices.” So, the question of how the range of choices can be widened through sustainable development, more democratic and more humanistic procedures is one of the most important topics in the current and future global political agenda. Being a humanist signifies an assumption of building bridges between north, south, east and west and strengthening the human community to face challenges together.

Societies nowadays are interconnected and cannot act in isolation. Therefore, if any conflicts exist between national and global priorities, appropriate resolutions are taken off the main agenda of principal powers. There are some very critical problems of the modern World, that none of the countries or institutions have managed to solve in isolation, like poverty, disease (Ebola virus, Tuberculosis, HIV, etc.), wars, terrorism, racism.

Famine in parts of Africa, depletion of natural resources, the proliferation of nuclear weapons, deterioration in human rights and democratic freedoms, problems concerning business life generated by technological change, are some additional problems that may require common, collective and participatory solutions.

Additionally, it is very difficult for those who have the responsibility of making national decisions to prioritize divergent interests of different groups within the same country. Decision-makers will rely on their beliefs, ideas, and values. Periodically, the ideology of their surrounding camp will also become apparent. It is very likely that they will formulate their decisions under the attraction of populism.

Even at an individual level there are significant problems in terms of formulating our decisions. According to Kahneman, Utility Theory makes logical assumptions of economic

rationality that do not reflect people's actual choices and does not take into account cognitive biases (Kahneman, 2012). Cognitive biases are tendencies to think in certain ways that can lead to systematic deviations from a standard of rationality or good judgement and are often studied in psychology and behavioural economics. Anchoring or focalism, availability heuristic, bias blind spot, cheerleader effect, conjunction fallacy, focusing effect, framing effect, hindsight bias, and omission bias are some examples.

As Thomas Hobbes remarked, perhaps we are selfish and driven by the fear of death and the hope of personal gain; perhaps we all seek power over others (Warburton, 2012). Even when we are unconvinced of the accuracy within the picture of humanity as seen by Hobbes, we may accept the existence of major differences between individual good and social good. The question of whether some important decisions both at the national and international level could possibly be taken by collective action must be asked. This view is not necessarily in opposition to sovereign states. In these post-normal times, nation-states are becoming weaker. This is sometimes called the globalization of individuals. The people of the world are more connected now; although this is not as unfavourable as it was declared to be by Hobbes in *Leviathan*.

Richard Thaler, in his book titled *Misbehaving*, lays out that our decisions deviate from the standards of rationality, meaning that we are all inclined to conduct ourselves in unacceptable ways on occasion. Thaler and Sunstein in their book titled *Nudge* criticize the Homo economicus view of human beings: "that each of us thinks and chooses unfailingly well, and thus fits within the textbook picture of human beings offered by economists." It seems reality is often contradictory to theory.

An attempt has been made by David Orell in his book *Economyths* to show how the science of complex systems is transforming economic thought. He claims that the main assumptions of economic theories must be replaced with more realistic ones; he perceives that the economy is unfair, unstable, unsustainable and that economics needs a scientific revolution.

Empirical studies have previously proved the fallacy that rationality is a presumed feature of traditional economic theory. Behavioural economics, a branch of economics, has embarked on challenging long-standing economic theories, which in turn could conceivably reshape the making of public policy. Leaders, policy makers, and CEOs are no longer seen to be any more rational than most other human beings in their judgments and the choices that they make. Kahneman says that human beings rarely meet the criteria of rationality even when they are sensible and are in possession of a good level of intelligence. There is always the potential for people to be irrational and commit a number of inaccuracies. So, if we take into consideration our nationalistic, religious, gender, race-based and cultural differences, we understand the possibility of rational decision-making being even more problematic than it is at present. When errors are predictable, it is easy for decision-makers to design policies that "nudge" us toward better choices. In the formulation of their policies, governments and international institutions could utilize the option of incorporating human factors into the

design and by using scenario planning methods that could become “choice architectures”. By moving in this direction, we can create credible and sustainable organizations that serve society’s interest simultaneously along with their own.

There is no Pareto-dominant policy, and no single policy ensuring that all individuals in society will be better off than they would be under any other policy. Different policies have different repercussions on different groups within society (workers versus financial markets, domestic creditors versus foreign creditors; borrowers versus creditors). Moreover, different groups are bearing different risks (Stiglitz, Ocampo, Spiegel, Davis, and Nayyar, 2006). Finding a general solution could be a very challenging task. As recourse, stage scenario planning through the use of information technologies could be used as a decision-making tool.

“Every reform for the future is a combination of the actions and lack of actions taken over time.”

There are different but associated definitions of scenario planning.

According to the definition of Bawden, scenario planning technique exploits the remarkable capacity of humans to both imagine and to learn from what is imagined (Chermack, 2011). It is an effective futures tool that enables planners to examine what is likely and what is unlikely to happen, knowing well that unlikely elements in an organization are those that can determine its relative success.

The term *Foresight* has different definitions but at a very simple level it is used in the connotation of understanding the future. Similarly, *hindsight* is used to understand the past and *insight* is used to understand the present. In foresight studies generally the three of them are used together but the impact of the past should not dominate the image of the future.

So how can this technique be used in a collective and participatory way to determine our policies with high impact on the future?

Different surveys can be conducted by combining questions based on foresight, hindsight and insight. The policies or strategies of the future can be determined at the global or/and national level. An international or national authority similar to that of today’s ombudsman can then take the lead in the process. Combining results with the evaluation of scientific committees, decisions can be taken. It may solve credibility and time inconsistency problems of the processes in which decisions are taken by privileged minorities—either politicians or managers.

Substantial organizational units, concomitant with economic growth, have higher prospects of affecting bureaucratization, impersonality, communication problems, and the use of force to keep people under control.

Economic growth usually requires greater job specialization, which may be accompanied by greater impersonality, more drab and monotonous tasks, more discipline, and a loss of craftsmanship (Nafziger, 2006).

A future which is healthier, wealthier and happier than the present necessitates fresh formulas for thinking, together with new decision-making mechanisms. The transformation of decision takers into decision makers may transpire as a result.

Governments may use the contributions of these studies in their policy making and implementation process. A novel approach to thinking is necessary during the decision-making and policy-making process. There should also be a change in the understanding of our thoughts and choices.

Every reform for the future is a combination of the actions and lack of actions taken over time by individuals, governments, corporates and the world. Therefore, an individual is unable to maintain control over the future as the world is also a participator. Nevertheless, individuals are not completely powerless; they can contribute to a degree of influential input.

If prediction and probability are limited ways of thinking about the future, could there be a prospect of using scenario planning at the level of macro decision-making, and what would the possible advantages of using scenarios be?

By designing a multi-round decision-making process similar to the Delphi technique, we can use the combination of scenarios and nudge analysis to improve the success of policies. This process must be designed to work practically without creating an added red tape. We need a new economic model in line with a system design. We need to think about non-profit businesses, non-market, non-managed, non-money-based activities, networks beyond the price system (such as sharing and collaboration).

The Delors report also asserted that “Learning to live together, by developing an understanding of others and their history, traditions and spiritual values and, on this basis, creating a new spirit which, guided by recognition of our growing interdependence and common analysis of these risks and challenges of the future, would induce people to implement common projects or to manage the inevitable conflicts in an intelligent and peaceful way.” (Living to Learn Together, 2014)

A theme which should appear at the top of the agenda for all nations must be from what source a system could be established to enable both preferable governance (more democratic, holistic and humanistic), and be practicable. Although sovereign states are essential, an adjustment to the structure of the United Nations could create a wealthier, healthier and happier world, notwithstanding the many attempts and brave actions it would take.

2. Governance and Management

The state has become increasingly dependent on organizations in civil society and more constrained by international linkages.

‘Governance’ differs from ‘government’ both theoretically and empirically. In theoretical terms, governance is the process of governing. It is what governments do to their citizens. But it is also what corporations and other organisations do to their employees and members. Government refers to political institutions; governance refers to processes of rule wherever they occur (Bevir, 2012).

According to Chhotray and Stoker, governance concerns the rules of collective decision-making in settings where there is a plurality of actors or organisations and where no formal control system can dictate the terms of the relationship between these actors and organisations (Chhotray and Stoker, 2009).

So, what is global governance? It is defined thus by the IMF.

The ideal of global governance is a process of cooperative leadership that brings together national governments, multilateral public agencies, and civil society to achieve commonly accepted goals. It provides strategic direction and then marshals collective energies to address global challenges. To be effective, it must be inclusive, dynamic, and able to span national and sectoral boundaries and interests. It should operate through soft rather than hard power. It should be more democratic than authoritarian, more openly political than bureaucratic, and more integrated than specialized (Global Governance, 2018).

Management could be defined as accomplishing a mission through other people or working with and through other people to achieve the objectives of both the organization and its members.

In what manner the system should be governed is still a much-disputed topic. The disputes between the schools of economic thought run still very deep. The debate is far from over.

Friedman, founder of the monetarist school, once said: “A society that puts equality—in the sense of equality of outcome—ahead of freedom will end up with neither equality nor freedom.” Following the ideas of Karl Marx, communist regimes set out to create a state of uniformity among their citizens through programmes of social engineering and centralized economic management.

Many economists from all branches of schools of economic thought have made significant contributions to the economic and political regimes of countries.

But our time is totally different from theirs. Solutions to the major problems of our time require a radical shift in our perceptions, thinking and values. *Post-normal times*, *post-normal science* and *human economy* are the concepts that we need to take into consideration to define a new role for science (Cepni, 2017). Post-normal times are characterized by complexity, chaos and contradictions; post-normal science is characterized by uncertainties, systems view of thinking, alternative perspectives, unknown unknowns, and values.

Throughout the world in many sectors senior managers are future illiterate; likewise, decisions are readily taken by using guidance given by expert-oriented (expert-predicted) futures. But the future is not an extrapolation of the past.

Policy and decision-making in addition to 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. They evolve or are driven into domains of instability and emerge into

new structures. There is now a growing gap or loss of suitability between our systems-management capabilities and the real world.

Complex adaptive systems consist of many diverse and autonomous components or parts (called agents) which are interrelated, interdependent, linked through many (dense) interconnections, and behave as a unified whole in learning from experience and in adjusting (not just reacting) to changes in the environment (CAS, 2018).

Hence in such areas when a simple mechanistic view is incapable of forming a solution to predict the future, contemporary reflection and alternative procedures in making decisions are essential.

In many commercial and non-commercial institutions, traditional strategic plans are still used to foresee and reach an unforeseen future at the micro level.

Strategic Planning is an organizational management activity that is used to set priorities, focus energy on resources, strengthen operations, and ensure that employers and other stakeholders are working toward common goals. However, now it is widely accepted that good management is against any conditions that encourage the standardisation of thought and accord support to original thinking. We need to see the world differently.

We are living in a new era of uncertainty which organisations are struggling to overcome. In response to the interconnected threats the world currently faces (the human family today has an unprecedented interconnection), elimination of a remedy from a single state is evident.

Also, at the micro-level, “strategic readiness” of an organisation in response to the challenges of an uncertain world is far from sufficient. A fear of not knowing is invariably with us and will continue to persist in the future, but we are proficient enough to design better decision-making models sufficient for use at the micro- and macro-level.

3. Changing the Ways of Thinking in the Governance Process: We Need Utopia

A line distinguishing what is natural, universal, and constant in humankind and what is conventional, local and variable is extraordinarily difficult (Modern Mind, 2002).

Systems thinking is the fundamental perspective of futures studies. It embodies some of the foundational principles of foresight, such as: every entity (thing) is a system that consists of parts (subsystems) which is also a part of larger systems—a holon—Arthur Koestler’s term popularized by Ken Wilber.

The new emphasis on complexity, networks, and patterns of organization is slowly evolving. 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”, denoting an understanding of life. A central characteristic of the systems view of life is its nonlinearity which denotes all living systems are complex—i.e. highly nonlinear networks,

where countless interconnections between the biological, cognitive, social, and ecological dimensions of life exist.

“The new decision-making or governance process should take culture, ethics, and complexity issues into consideration.”

The new scientific conception of life can be seen as a shift to a broader paradigm, adapting from a mechanistic to a holistic and ecological worldview. A shift of metaphors encourages a change from the world being viewed as a machine to understanding it as a network.

We are surrounded by complex adaptive systems. The stock market, the world economy, society, the biosphere and the ecosystem, the brain and the immune system, management teams, traffic and more are just some of the examples of complex adaptive systems.

The business dictionary gives a detailed definition of complex adaptive systems:

Entity consisting of many diverse and autonomous components or parts (called agents) which are interrelated, interdependent, linked through many (dense interconnections, and behave as a unified whole in learning from experience and in adjusting (not just reacting) to changes in the environment. Each individual agent of a CAS is itself a CAS: a tree, for example, is a CAS within a larger CAS (a forest) which is a CAS in a still larger CAS (an ecosystem). Similarly, a member of a group is just one CAS in a chain of several progressively encompassing a community, a society, and a nation. Each agent maintains itself in an environment which it creates through its interactions with other agents.

The new decision-making or governance process should take culture, ethics, and complexity issues into consideration and by using information technologies of today it will encourage a more participatory, fair and credible answer.

The actuality that our decisions are heavily affected by our cultural heritage exists. There is no common definition of “culture”, but it may be defined as “the unique combination of expectations, written and unwritten rules, and social norms that dictate the everyday actions and behaviours of people.”

In the decision-making process we consider how the future may differ from the present. We consider and explore in what manner the rules might change.

Strategic foresight revolves around the question of “what will change?” Therefore, to implement a proactive response, the preparation of contingency plans could be organized for unexpected situations, in addition to consideration being given to the plausibility of a wide range of future eventualities.

Generally, our emotional energy is blind to probability but even when this is not the case, our inability to predict the occurrence of extreme events from past history is notable. Moreover, risk is in the future, not in the past.

Ethics can be defined in different ways but if we define it as the rules by which people agree to live together in this age of complexity, we may even define new rules more relevant to the changing conditions of our time. Also, ethics shows us the relationship between “individual good” and “social good.”

“To have a vision, to be a visionary, or to change a part of the world does not necessitate actions from a great historical leader.”

Catastrophe theory, chaos theory and the problems posed by incomplete information, “fracta,” is changing the meaning of the word “knowledge”. It is producing unknown interpretations in place of known explanations.

There is the potentiality to use education, science, culture and communication as the pillars of a new science, forcing a divergent decision-making or governance system to emerge.

To initiate a united human community and secure development as a sustainable actuality, it is essential to recondition our management mechanisms to differentiate between growth and development.

In several countries in a variety of sectors senior managers are future illiterate, and their decisions are being taken by employing established expert-oriented (expert-predicted) futures. However, one must debate whether the future is an extrapolation of the past and on what basis a planner can anticipate the good, right and proper standards of tomorrow. The values of planners are perhaps limited; the values of the present may not be those which will be followed by people in the future. This is a form of tyranny—the tyranny of the present, as mentioned by futurist Alvin Toffler.

Growth is a quantitative concept, whereas development is a qualitative concept. By using nudge and choosing architecture tools such as scenario planning and other foresight methods, a comparison can be made between short term gains and long-term losses of all decisions.

Modern economies today have undergone a dramatic change. Large-scale material manufacturing has been replaced by the design and application of new technology with R&D and human capital. The new information age has introduced significant productivity gains through increasing returns and becoming assimilated with the process. This has challenged the traditional growth models based on competitive market structures.

A complex decision problem is present in many parts of life. If two or more of the following conditions are fulfilled, it is called a complex decision: The actor pursues several goals simultaneously and some of these goals are not very precisely defined, and it is even possible that contradictions exist between them. As Morieux shows, CEOs in 1955 pursued 4-7 goals. In 2010, 25-40 goals were pursued simultaneously (Grunig and Kuhn, 2013).

To what extent the creation of new and especially shared knowledge is used in companies, in public and private institutions, in NGOs, etc. (from fixed to autonomous management) is undocumented and not very well known.

The use of flexible methods in working groups, variable utilization of open discussion and brainstorming, participant empowerment, future-oriented workshops on selected themes facilitated by experts are becoming more popular. However, as there is no change in the decision-making role, the traditional top to bottom decision-making model is used.

There are two different conceptions about the rationality of decision-making.

Substantial rationality, on the one hand, demands that the goals pursued are the right ones, that is, the goals are rational. Additionally, the decision-making procedure must also have a rational course. Formal rationality, on the other hand, requires only that the decision process be rational. As goals generally represent subjective values, they cannot be considered as right or wrong. Thus, substantial rationality is not possible. Management science is therefore oriented towards formal rationality.

To have formal rationality we need to use the future in an enhanced manner. Instead of short-termism, the exploration of long-range objectives is a requisite. The consolidation of holistic view, economic, political, institutional, sociological, technological and environmental aspects is one alternative. A multi-disciplinary approach to foresee main changes of the future is a valid concept.

The Discipline of Anticipation can be used as the base for a new decision-making process.

Prediction does not work efficiently in the world of human affairs, since there is a lack of recorded scientific theory of human behaviour.

In fact, there are many theories in psychology, anthropology, sociology and suchlike. All of them are effective to some extent, but they are equally fallible. Therefore, when predicting the outcome of a process involving human beings, uncertainty will always be prevalent.

The objective would be not to be excessively right (which is impossible), but rather not to be wrong. We are surrounded by many surprises and unexpected events. Surprise, as a word, means inadequate preparation, late response, risk of failure, even chaos or panic.

The power of people to influence their future is related to the quality of their vision and a vision is a concrete image of a preferred future state.

To have a vision, to be a visionary, or to change a part of the world does not necessitate actions from a great historical leader. We can use better tools of decision-making for today's complex world (post-normal times).

Scenario Planning is inherently a learning process that challenges the comfortable conventional wisdom of the organization by focusing attention on how the future may be different from the present (Wilson, 2000).

Scenarios are management tools used to improve the quality of executive decision-making and help executives make better, more resilient strategic decisions.

Back-casting is one of the scenario techniques. An imagined future begins the process, followed by the creation of a path to the desired point in the future. The path could be

constructed through analytical methods or through more creative methods such as “future history writing.”

Foresight is different from forecast. “Forecast” is used as a term for predictions; foresight is a term that describes a more open perspective on futuristic thinking.

It focuses on the identification of possible futures, potential issues, tendencies, and uncertainties, often using the scenario method. It is similar to the term ‘prospective analysis’.

There are some pitfalls of scenario planning too. There are prejudices, wishful thinking and blind spots that could lead to lousy analyses. Other traps are also present, namely; process design, selection of participants, and communication format in addition to others. Well-designed procedures may eliminate some of these deficiencies.

In this stage, online voting systems and suggestion collection method could be used.

A scenario is the full description of a future state and the path to that future. Some scenarios may include wild cards in it to show possible future results affected by our current decisions. Wild cards are unlikely future events that would have a great impact if they occurred.

To study the future is to study potential change—unveiling what is likely to make a systemic or fundamental difference over the next 10-25 years or more and it is not economic projection or sociological analysis or technological forecasting; it is a multidisciplinary examination of change in all major areas of life to find the interacting dynamics that are creating the next age (Giaoutz and Sapio, 2013).

The emerging scientific conception of life involves a new kind of thinking, one that thinks in terms of relationships, patterns, and context. This is known as “systems thinking.” A central characteristic of the systems view of life is its nonlinearity: all living systems are complex—highly nonlinear networks; and there are countless interconnections between the biological, cognitive, social, and ecological dimensions of life.

A consideration may be given to whether our perspectives may be altered to encompass alternative beliefs on the practicalities of life. We must question ourselves on the feasibility of collective genius and whether the wisdom of a multitude of people acting collectively is achievable, noting that fulfilment requires enforcement, trust and government support.

Crowds can be mad as well. To be wise they need to be diverse in their membership (Goddard and Eccles, 2013). We live in a turbulent world. Plans, strategies and policies are based on fixed goals. But the environment and the conditions that we live in are changing very rapidly.

Corporate and government responsibilities are also changing at a rapid pace. Human beings contribute to marked improvements in social capital and are able to utilize collective intelligence to a greater degree.

4. How can Global Governance be achieved through Collective Intelligence?

Cybernetics was the result of a multidisciplinary collaboration between mathematicians,

neuroscientists, social scientists and engineers, a group that became to be known collectively as cyberneticists.

To efficiently resolve our problems, an optimum solution is to make scientific disciplines work collaboratively on post-normal formulas.

It is questionable whether the establishment of an international organization to govern complex global issues is a practical option, however, many radical changes have always started with utopian ideas.

The Information technology available today would allow the population of the world to cast their vote for their chosen governor of the institution that we will name “supra-national ombudsman”, and her duty will be to act as the ombudsman of the earth and all living things on it.

Then if the extent of a decision is simple, the problem will be well structured, and consequences can be predicted quite easily so the decisions can be formulated through the direct votes of all people living on earth. However, if the problem is complex then a detailed order can be put into effect.

Issues will be redressed by a scientific committee whose election will be determined by the general public. In the first instance, suggestions and solutions by interested parties and called upon experts would be presented, followed by the sharing of all possible scenarios and their possible consequences through online videos to all people, governments and institutions.

Richard Thaler and Cass Sunstein suggested that if a particular unfortunate behavioural or decision-making pattern is the result of cognitive boundaries, biases, or habits, this pattern may be “nudged” by public policy makers toward a better option by integrating insights about the very same kind of boundaries, biases, and habits into the *choice architecture* surrounding the behaviour.

When the problem is totally divergent and contains more than quantitative aspects, in order to address the problem, the resolution will subsequently be brought to the supra-national ombudsman. The collection of scenarios and suggestions of scientific committees will be combined, adding nudging if it is necessitated before being proposed to people through direct online surveys.

Choices will be authorized by national governments despite the fact that some issues may impede on global order and/or limit the supremacy of sovereign states. Nevertheless, a written charter incorporating international agreements would endorse the new institution.

Determination of what majority is sufficient to endorse a decision, in addition to what actions may be taken to compel any country that refuses to obey decisions, are details that must be reconciled.

It seems in the post-normal times of today, to enable further credibility of the world, there is a need to destroy it theoretically before we destroy it in practice. Governance systems will then have more accessible means to cope with change and uncertainty. The creation

of bureaucracy by the governments, a rule of no one, is described by Mary McCarthy as the modern form of despotism.

“The term “Utopia” is not something which is unrealistic or unreachable; by choosing a difficult road which requires a paradigm shift and radical changes (which may seem unrealistic or unattainable), we can shape the future in a better way.”

Regardless of how we might describe the present, the digital epoch, the Fourth Industrial Revolution or the second machine age, *a new world order* could be designed by nations particularly concentrating on complex problems. Trust must be reinstated in global governance. We live in a VUCA (Volatility-Uncertainty-Complexity-Ambiguity) world. Actors with different forms of authority and different interests are incompetent in finding common solutions to complex problems.

There are many advantages to start work on the governability of such a collective-participatory-inclusive system. Thinking the unthinkable is not utopia. **Utopia** is a Greek word meaning “**no place**.” But it may be combined with Eutopia which means “**good place**.”

It is more appropriate to endeavour to explore the governability of such a collective-participatory-inclusive system, as just thinking the inconceivable is not utopia.

A similar system can be designed within corporations. Andrew Chakhyan names it “intrapreneurship” which means creating new ideas from within organisations. This utopian idea may bring us to utopia.

5. Conclusion

Modern world individuals are isolated and helpless. The fundamentals of anxiety are characterized as a feeling of “being small, insignificant, helpless and endangered, in a world that is determined to abuse, cheat, attack, humiliate, betray and envy.”

A new solidarity or new humanism, to reintegrate all countries in the universal community, may be named as utopian by some decision makers or politicians; however, the meaning of utopia is misused. The term “Utopia” is not something which is unrealistic or unreachable; by choosing a difficult road which requires a paradigm shift and radical changes (which may seem unrealistic or unattainable), we can shape the future in a better way. History has an array of success stories of these kinds of utopian ideas.

Changes in the world call for the development of a new humanism, one that is both theoretical as well as practical, and which does not solely focus on the search for values but is also oriented towards the implementation of concrete programmes that have tangible results.

The Italian philosopher Pico della Mirandola (1463-1494) expressed this point at the tender age of 24, when he developed the central concept of humanism in his famous *Oration*

on the *Dignity of Man*, written in Florence in 1486: “God the Father, (...) taking man (...), set him in the middle of the world and thus spoke to him: ‘we have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer.’”

“The nature and character of the future of a nation and its development should be a major concern of all nations irrespective of their political, ideological or economic orientation.”

Global crises raise challenges that cannot be resolved by any single country. Societies are interconnected and cannot act in isolation. It is the responsibility of every one of us to bind the community of humanity together, to build a common space that excludes no one, regardless of continent, origin, age or gender.

Sustainable development is development that meets the needs of the present without compromising on the ability of future generations to meet their own needs.

We need a new global governance model to assess the future impact of multimedia, the human genome project, biotechnology, artificial intelligence, organ transplants, superconductivity, space colonization, and myriad other developments.

By which process are planners empowered to anticipate what will be good, right and proper in the perceptions of tomorrow?

The values of planners perhaps are limited and the principles of today are not necessarily the same as those which people will have in the future. This is a form of tyranny, termed the **tyranny of the present** by the futurist Alvin Toffler.

The new book *Skin in the Game* by Nassim Nicholas Taleb states that we are not in possession of the power to control other people, we are only able to influence our own reactions to them. The author adds that the curse of modernity is that we are increasingly populated by a class of people who are better at explaining than understanding (Taleb, 2018).

The world is like the human body, if one-part aches, the rest will feel it; if many parts hurt, the whole will suffer. The nature and character of the future of a nation and its development should therefore be a major concern of all nations irrespective of their political, ideological or economic orientation. As we look toward the next few centuries, there can no longer be two futures, one for the few rich and the other for the many poor.

Every ecosystem, every species, everything that happens in air, water or on the land is affected by what people do or have done. This is why many scientists believe that it is time to proclaim an end to Holocene Epoch, which began some ten to twelve thousand years ago with the end of the last Ice Age, and recognize that we have now entered a new epoch, the Anthropocene, in which human activity has come to rival nature as a force in the evolution of life on Earth (Anderson, 2016).

We need to meet the needs of the present without compromising on the ability of future generations to meet their own needs.

As Spinoza verbalised, “If facts conflict with a theory, either the theory must be changed or the facts.” It seems some constructed theories are conflicting with the facts of today.

To guard our optimism, we may be reminded of Seneca’s important expression: “Every new beginning comes from some other beginning’s end.”

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Bibliography

1. Anderson, W.T. (2016). *We the Planet, Evolutionary Governance and Biophilia in The Anthropocene*, The Meridian International Institute.
2. Bevir, M. (2012). *Governance, A Very Short Introduction*, Oxford University Press.
3. Bokova, I. (2010). *A New Humanism for the 21st Century*, UNESCO, Milan,
4. Capra, F and Luisi, P. L. (2014). *The Systems View of Life, A Unifying Vision*, Cambridge University Press, UK.
5. Cepni, E. (2017). Transforming Education for a Transition into Human-centered Economy and Post-normal Times, *Cadmus*, Volume3, Issue3, October 2017.
6. Chermack, T, J. (2011). *Scenario Planning in Organizations, How to Create, Use and Assess Scenarios*, Berrett-Koehler Publishers, Inc. California.
7. Chhotray, V and Stoker, G. (2009). *Governance Theory and Practice, A Cross-Disciplinary Approach*, Palgrave Macmillan.
8. Complex Adaptive Systems. (2018). <http://www.businessdictionary.com/definition/complex-adaptive-system-CAS.htm>.
9. Dupre, B. (2011). *50 Political Ideas You Really Need to Know*, Quercus Editions Ltd,
10. Giaoutzi, M and Sapio, B. (2013). *Recent Developments in Foresight Methodologies*, Springer, New York.
11. Global Governance. (2018), <http://www.imf.org/external/pubs/ft/fandd/2007/12/boughton.htm>
12. Grunig, K and Kuhn, R. (2013). *Successful Decision-Making, A Systematic Approach to Complex Problems*, Third Edition, Springer.
13. Kahneman, D. (2012). *Thinking, Fast and Slow*, Penguin Books.
14. *Learning to Live Together*. (2014). UNESCO Publication.
15. Nafzinger, E.W. (2006). *Economic Development*, 4th edition, Cambridge University Press.
16. Orrell, D. (2012). *Economyths*, Icon Books, UK.
17. Richest 1 percent Bagged 82 percent of Wealth Created Last Year – Poorest Half of Humanity Got Nothing.(2018). *Oxfam International*, 22 January 2018, <https://www.oxfam.org/en/pressroom/pressreleases/2018-01-22/richest-1-percent-bagged-82-percent-wealth-created-last-year>
18. Sardar, Z. (2010). Welcome to Post-normal Times, *Futures*, 42, 5 June 2010.
19. Stiglitz, J, E., Ocampo, J, O., Spiegel, S., Ffrench-Davis, R., and Nayyar, D. (2006). *Stability with Growth, Macroeconomics, Liberalization, and Development*, Oxford University Press.
20. Taleb, N.N. (2018). *Skin in the Game, Hidden Asymmetries in Daily Life*, Penguin Random House.
21. Thaler, R.H and Sunstein, C.R. (2009). *Nudge, Improving Decisions about Health, Wealth & Happiness*, Penguin Books, UK.
22. Thaler, R.H. (2015). *Misbehaving, the Making of Behavioral Economics*, W.W. Norton & Company, Inc, New York.
23. Warburton, N. (2012). *A Little History of Philosophy*, Yale University Press, Great Britain.
24. Watson, P. (2002), *The Modern Mind, An Intellectual History of the 20th Century*, Perennial, New York.
25. Zajda, J. (2009). Values education in the global culture. In J. Zajda & H. Daun (Eds.), *Global values education: Teaching democracy and peace*. Dordrecht, The Netherlands: Springer.
26. Zakaria, F. (2009). *The Post-American World, and the Rise of the Rest*, Penguin Books, England.

Towards a New Economic Theory of the State

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Abstract

The present article traces the authors' approach to constructing a new economic theory of the modern state, considering the theory of patronized goods and a general concept of mixed economy failures as its two important components. This approach is based on the original interpretation of the term 'irrationality' and proposes a more general definition of 'paternalism', revealing negative consequences of its present interpretation. Along with the other failures of the mixed economy, the authors describe a special case—'paternalist failure'—that may be considered a combination of failures in social choice and irrational government bureaucrats' activities. There are five types of bureaucratic irrationalities: Vyazemsky's law, dilettantism, 'cashier effect', Parkinson's law and government officers' 'rent seeking' behavior, that lead to their failure. The authors show that in contrast to market failures impacting government activities, paternalist failures require other responses demanding different activities,—democratic procedures for creating paternalist lines and the introduction of the procedures limiting bureaucratic tyranny.

1. Introduction

Considering a model of the modern state, let us examine the links between the theory of patronized goods and the concept of mixed economy failures (Rubinstein, 2017), summarizing social and merit goods, including the idea of libertarian and asymmetric paternalism. These are the theoretical constructions considering the paternalist activities of a government. Let us recall the definition of the term 'patronized goods'. These are the goods and services, consumption of which the government regulates—increase or decrease—using its choice or preference. At this point we find the connections between the theory of patronized goods and merit goods, libertarian and asymmetric paternalism. But besides the general, we can find specific features.

Considering people's current behavior, we think their activities are subjectively rational in any circumstance, including the situations described by Musgrave, and later outlined by behavioral economists.

But if we label their behavior as irrational, we should not create special constructions with several utility functions for each individual to explain their behavior (Margolis, 1982; Sunstein, Thaler, 2003). Such a construction, as it is well known, includes a weakly

approved assumption that a government knows the individual's 'genuine preferences'. The theory of patronized goods rejects on principle this shabby provision being fairly criticized (Kapelushnikov, 2013, p. 40).

“In the real world there are no perfect institutional conditions, where self-regulating mechanisms would work without mistakes, continuously harmonizing the interests of social and economic agents.”

Its basic feature does not deny a phenomenon of dual preferences, but gives another understanding of its nature. The question is about the presence of the two points for the estimate—each having its own preferences. Based on this assumption, the theory of patronized goods proposes a different understanding of the dual preferences phenomenon.

The basic idea of the theory of patronized goods is to treat individual behavior from “the subjective point of view—as a goal to which an active person aims because he considers it rational.” (Mises, 2005, p. 24) The theory of patronized goods assumes the presence of an independent source of estimate—that is namely the carrier of normative standard. From the point of view of this ‘outside observer’, individual behavior may be estimated as irrational or limitedly rational.

As a matter of fact, we can observe the same situation in macroeconomics, where, as the new Keynesians consider, the economic agents act subjectively, trying to optimize an individual's behavior in time. Moreover, when compared to meritocracies and behavioral economics, government paternalism is based on some individual “genuine preferences”. Economic regulation in macroeconomics is based on the idea of accelerating returns to make full use of resources possible or to reduce balanced economy biases.

Considering all this, “pater” stimulates the changes in economic agents' behavior. One can easily see that a government understanding how to correct its behavior has the same nature as its “knowledge” of individual “genuine preferences”. In both cases, government pater manipulates the behavior of economic agents.

In other words, paternalism in any form means imposing the “pater” settings on members of a specific community of individuals—it may be a household, a company, a social group, whose behavior and/or institutional media (where one acts) is considered ineffective. Concerning this, the nature of paternalism is tightly connected with and even conditioned by the failures of the mixed economy—namely the periodic disproportions between the real results and the normative idea of individual well-being and society's integrity.

2. Social Interest and Paternalist Failures

One of the basic features of the economic theory in progress is the assumption of the concept of economic socio-dynamics and the theory of patronized goods concerning the

interest of society—if any,—which cannot be reduced to the interests of the economic agents (*Grinberg, Rubinstein, 2005, 2013; Rubinstein, 2013*). This important methodological statement contradicts the basic neoclassical statement—methodological individualism.

At the same time, a more detailed analysis of this contradiction allows us to identify a conditional character of this assumption. The point is that a reduction in social interest to the interests of individuals is based on an important latent assumption. By default, we find here a hypothesis of *the perfect institutional environment*—analogous to A. Smith’s ‘invisible hand’—an environment filled with rational individuals. In this case the interests of individuals cooperating with other actors and perfect institutions reach harmony and transform into an integral social interest.

The situation changes radically if we cannot confirm this hypothesis. In these circumstances it is no longer possible to insist that self-interests of acting individuals are transformed into the summarized interest of a society’s integrity. As a matter of fact, these very circumstances led to the introduction of the term “unreducible social interest.” (*Grinberg, Rubinstein, 2005*)

We need to stress that in the real world there are no perfect institutional conditions, where self-regulating mechanisms would work without mistakes, continuously harmonizing the interests of social and economic agents. That is why we can discuss the other nature of social interests and consider a ‘government playmaker’ as an autonomous market actor, using his resources for achieving the goals he declares on behalf of society.

In this context we can think of the two versions of social interest. In one case there is a market coordination of individual behavior, in which their aggregate interest is shaped, and in the other case—there is an autonomous social interest that would not be reduced to individual preferences. We shall think of two parallel processes, about the two lines of creating social interests. At the same time the theory of patronized goods analyzes two lines—the market (economic) and political. Within the political line normative interests and corresponding settings are generated by political institutions which define the nature and substance of government paternalism (*Rubinstein, 2013, p. 18-19*).

Considering the political line and the government with its normative interest, one should not forget about the Boudon verdict. R. Boudon stressed that these assumptions are valid only if an individual is able to act in an institutional environment, allowing him to make collective decisions (*Boudon, 1979*). An institutional system allowing an individual to make decisions on behalf of society is an obvious condition for government designing normative settings.

Collective decisions made on behalf of the government generated by the political line should be considered as the result of a discourse determined by the current institutions and the elite’s interests, capable of both bringing closer real social needs and diverging from it (*Tikhonova, 2013, p. 41–43; Urnov, 2014, p. 26*). “The political process has its own logic; in many cases it does not match with the common logic of optimizing economic mechanisms.” (*Radigin, Entov, 2012, p. 26*),—This is valid and true.

In the recent past, the concept of the “charity state” dominated, which was driven exclusively by the realization of social interests. But in the second half of the twentieth century, a new

logo was playing a more important role—the thesis of shifting the political decisions towards the interests of the ruling elite (*Stigler, 1971*). In the same context one should consider that government paternalism is not always directed to the “pater care” of the people’s well-being according to the initial interpretation of this idea—even in the origin (*Alson, 2006*). In other words, the political line actualizes the interests approved only by the elite.

“The democratization of collective decisions, and search for institutional mechanisms limiting power of the majority, are key tasks for modern political science and the theory of social choice.”

Their assumptions merely become the normative social interests as a result of corresponding collective decisions. Whatever the mechanisms of creating the social interest—whether these are personal decisions of a group leader, or based on the collective’s votes, or a coalition decision—the interest is always determined in the form of pater assumption “as it should be”. For all this the decisions made depend on the level of the society’s development, its political system, the government rules and regulations. That is why the decisions suffer defects, namely—wrong public choice, bureaucratic tyranny, risk of losing social well-being (*Melnik, 2015, p. 16; Gorodetsky, 2016, p. 430*).

It is worthwhile stressing that a parliamentary party (in coalition), formulating the normative assumptions (within the political line), possessing the necessary majority of votes, has the ability to vote practically for any decision in favor of the party interests (*Polterovich, Popov, 2007; Hillman, 2009*). And the point is not whether the parliament is representative and how its work is organized. The principal components are the procedure of making decisions and its basic constituents (*Melnik, 2015, p. 18*).

Related to this, one can formulate the fundamental contradiction of the modern political process. On the one hand, any democratic system is built on the majority’s domination, on the other hand—subordination to the majority would turn into “following the majority”*.

“Many of those, who support democratic “institutions”,—wrote L. von Mises—”would ignore these ideas... The arguments they propose in support for freedom and democracy, are infected with the collectivist mistakes. Their doctrines are likely misinterpretations, than a support to genuine liberalism. In their opinion the majority is always right only because it is able to crash any opposition. The majority is a dictator power of the most member-intensive party. Such a liberalism—namely pseudo-liberalism—is an opposition to liberal doctrine.” (*Mises, 2005, p. 144*) The democratization of collective decisions, and search for institutional mechanisms limiting power of the majority, are key tasks for modern political science and the theory of social choice.

* It is not difficult to resist against the influence of one villain, but many of them are rushing down the slope headlong; not jumping into the stream is the sign of a noble soul and wise mind, educated by courage (cit. from (*Kovelman, 1996, p. 65*)). These modern sounding words, so elegantly formulated, belong to Philo Alexandrinus—a philosopher in IBC, who in his writings combined the Jewish tradition with the Greek culture.

From the end of the twentieth century this theme became popular among researchers. Among them was J. J. Laffont; he stressed that “despite a domineering view of social interests—as a decisive goal in choosing the way for economic development,—intervention of the theory of interest groups, making a special accent on its influence on political decisions, is still expanding.” (*Laffont, 2007, p. 23*) Analyzing this tendency, he points to an ‘authentic adviser’ in the ruling party, who proposes a program of activities aimed at increasing his advantages in a particular economic and political situation. (*Laffont, 2007, p. 22*)

At the same time, it would be a mistake to think of the unique possible choice; it is always in the field of normative decisions where the target guidelines of the parliamentary majority are playing the main role. At the same time, society (according to Laffont) comes into a collision with political tyranny in determining pater assumptions that are fraught with false decisions.

If a problem of “pater” pattern setting is held back or by default is set to increase social well-being in the concepts of public goods, merit goods and new paternalism, as well as in the Keynesian doctrine, then in the theory of the mixed economy failures this question is of prime importance and it is thoroughly examined through the optics of collective decisions taken by the parliament. The parliament by itself may be considered as adviser to political parties, representing the interests of relative groups of voters.

Such an approach is the basis for using Arrow’s theorem “on the impossibility” of the integrity of authentic advisers. It makes the following conclusion: it is impossible to coordinate the parliamentary parties’ interests. It is necessary to notice that the real political practice of the democratic governments demonstrates the general rule: every parliament would evolve towards a collective dictator (according to Mises) in the form of a party-in-power or the parties’ coalition, which, as a rule, possesses the necessary majority of votes for making decisions.

Moreover, parliamentary voting would produce “paternalist” assumptions not related to the needs and priorities of a society, ignoring the preferences of small parties, and the interests of their many million voters. This outcome may be applied to any procedures of collective decisions, about which Boudon wrote and against which Mises warned, creating distrust in paternalism and government activities in a majority of economists and politicians.*

In these circumstances a doctrine of charity-state is obviously not correct. Let us examine the fact that the consequences of assumption not corresponding with the needs of society may be the decline in well-being, explaining one of the mixed economy failures—“*paternalist failure*”.

It is necessary to stress that paternalism in any government system would lead to a strong government, which would, as a rule, drift to a “Leviathan” system. At the same time the negative consequences of government paternalism may strengthen because of improper

* Let us mention the writings of the representatives of the Virginia school of political economy C. Rowley and M. Vachris; they showed up as the opponents to “free electors’ choice” (*Rowley, Vachris, 1993, 2004; Rowley, 1997*).

bureaucrats' activities, at the same time generating "government failures", provoking the very special type of paternalist failure—"bureaucrats' failure."[†]

3. Bureaucrats' Failure

According to the well-known principles of behavioral economy and alongside Max Weber's traditions (*Weber, 1994, p. 57-58, 345*), we shall further understand "bureaucrats' failure" as the *irrational activities of bureaucrats*. Let us analyze the behavior of government officers[‡] whose activities do not always correspond with the assumptions of the government's strict orientation to the implementation of representative and executive power—that is one of the key problems of the general theory of the mixed economy failures.

3.1. Irrationality of Bureaucracy

At the same time there are no ideal conditions for bureaucrats—each in his place—to act without mistakes. The standard theory does not give enough explanations for this phenomenon, but gives reasons for analyzing the behavioral peculiarities of bureaucracy. The examination of different government service concepts (*Obolonsky, 2000; Vassilenko, 2001*) provides the ground for affirmation, that one would find here the methodological assumptions, based on rational behavior principle this time—specially for bureaucrats.

According to this principle, every government officer would choose the best variant for his activities optimizing not only his own well-being, but the society's as well. In other words, any bureaucrat would seek maximizing his utility function within the given limits, making up his position functions. All the rest would be provided by the institutional system of the government rule, aimed at harmonizing social interests with government officers, thus closing the gap between executive power decisions and the government's assumptions, formed within the frames of a political system.

If government rules and regulations fail and generate the wrong decisions causing losses in social well-being, these failures are explained by governmental dysfunctions—the failures of the system itself that need to be reformed—and/or irrational individual activities of the government officers. Not diving too deep into this subject, we stress the most important point: an effective system of government administration is driven by the *rational* behavior of bureaucrats. At the same time their activities are rational only when they are able to choose those lines that would mostly respond to their preferences— within the available variants.

At the same time, recalling Blaug, let us note that even in the activities of government bureaucrats, "it is impossible to exclude the behavior driven by immediate impulse, a habit... or even by the forgetfulness" (*Blaug, 2004, p. 351*) that allows proposing the possibility of choosing not the best variant, thereby leading to a loss in social well-being. Let us add that—

* The government dysfunctions may mean excessive government interference, as well as a lack of its necessary activity (*Crosier, 1997, p. 699*).

† We can find descriptions of similar government failures, as contrasted with market failures, in a number of publications. For example, in (*Krueger, 1990; Tullock et al., 2002; Winston, 2006; Radygin, Entov, 2012*).

‡ Officer here is an executive manager within a system of public administration.

as in the case of economic agents' "behavior failure" (Gorodetsky, Rubinstein, 2017)—there is a lot of evidence revealing the failure of rationality principle in bureaucrats' behavior (Zinchenko, 2002).

If economic theory, which allows government interference in individual behavior, explains it by individual irrational activities and pater's drive to push economic agents to choose some "genuine preferences",—we shall observe a completely different situation about irrational government bureaucrats' behavior. "Genuine preferences" in this case is not a hypothesis. On the contrary: every government officer—according to his professional functions—is assigned what to do in order to implement government decisions. So here comes the question: why and how are bureaucrats' irrational activities generated?—the activities leading to "bureaucrats' failure."

The analysis of different concepts and practices of the government gives us a possibility to forward a hypothesis about the several types of irrationality of government officers, stipulated by *objective imbalanced interests* of the government. These bureaucrats are also called to implement their personal interests as individuals. This imbalance, to our mind, reveals the negative aspects of the government administration system, leading to government failures, breaking economic growth and creating losses in social well-being. Let us discuss this hypothesis, having distinguished a number of institutional reasons for irrational bureaucrats' behavior without giving a full description of the nature and types of "bureaucrats' failures."

3.2. Vyazemsky's Law

Let us ignore the rational behavior of bureaucracy and look at another fact—in many cases rational behavior is driven by the institutional environment: specific acts, current norms and regulations. At the same time many analytics note the "genuine character" of any bureaucratic system—that is an excessive number of various instructions at different levels of executive power, often impossible to be implemented (Dolfma, 2013).

Let us point at inflexible legal and normative acts concerning economic activities, the undue tendency of a government (as certain administrations) to unify its establishing norms without considering different specifications of various branches and forms of (economic and social) activity.

Let us analyze the example of the Russian Federal Act on the contract system concerning provisions, works and services for the government and municipal needs. This Federal Act sustaining competition (between service companies) requires open tenders in every sphere—in providing resources for the offices, and for inviting the famous tenor for opera performance in the Bolshoi Theater.

Last year's procedure for such unification followed practically all the government acts, regulating the activities of legal bodies in Russia without any concern for a particular branch or sphere. And as it usually happens, nobody is trying to respect the given norms. It looks like this has become a common practice and a special feature of the Russian system of management.

Let us recall the known motto of Peter Andreevich Vyazemsky: “severe Russian laws are moderated by the failure to their implementation.” This institutional feature provokes bureaucrats’ irrational behavior, with its inevitable consequences—bureaucrats’ failures.

3.3. Dilettantism and a Capture of “the others” Competences

Let us observe some specific circumstances that illustrate the irrationality of bureaucracy. First of all—and like the famous Lester Salamon analysis (*Salamon, 1987*)—it is necessary to point to the dilettantism of the clerks. The thing is that people without necessary professional competences, knowledge and skills are appointed to managerial positions at different levels in modern government—from their affiliation to the particular political elite (*political principle*). Let us also add nepotism (*clan principle*). Nominations to high positions in executive institutions also give way to the practice of “one’s own” people (*clan (or nepotism) principle*).

No doubt, we cannot exclude the situations when these methods would still provide nominating professionals with the necessary characteristics. But in case a dilettante becomes the boss, our hypothesis would be considered funded. Thus, “bureaucrats’ failure” becomes inevitable. The incompetent officer is unable to exercise his duties. Making mistakes in making important decisions, he would in fact substitute rational behavior—by acting “from general assumptions.

Let us distinguish another type of irrational bureaucrats’ behavior, which reaffirms our hypothesis. Let us turn to the irrational behavior of government officers, who are willing to extend the frontiers of their influence and rule beyond the frames of their competences. This phenomenon, called “cashier syndrome,”* is well known and is widely discussed in the literature (*Zverev, 1992, p. 91; Chesnokov, 2000, p. 161-171*). This syndrome is seen in individual officers and at the administration level.

The same situation can be traced in the takeover of outside competences by the Finance ministry. The concentration of the most economic management functions in this Ministry has narrowed its ability to influence economic development of the country by the due Ministry of economic development. Concerning the basic function of the Finance ministry—to rule and regulate the budget policy—its jump beyond the functions would increase the risks of irrelevant strategic decisions running contrary to the task of economic growth.

Another example of a takeover of “others” (outside) competencies is the activities of the Federal Agency for Scientific Organizations (FASO, Russia) that go far beyond the material provision of scientific organizations. This situation requires a more detailed analysis, but it looks like this Agency with a thousand manpower managerial staff, was able to grab “the second key” to the Russian Academy of Sciences. This situation has dramatically reduced the ability of the Russian Academy of Sciences to influence the process of scientific research and development in the country.

* One usually thinks that nobody wants to be “just a cashier”—everyone who is handing out cash would like to decide by himself, whom to, what for and how much money they would like to hand out.

Apparently, a more frequently observed situation of an outcome beyond one's competences can be observed at the individual level. "Bureaucratic tyranny" has been analyzed in many publications (*Smirnov, 2009; Obolonsky, 2011*). We stress again that in many cases this tyranny is caused by the attempts of an individual bureaucrat (administrator) to extend personal power.

In all similar cases, such a "privatization of authorities" limits the legitimate opportunities of other citizens, thereby increasing the risks of failure to execute the tasks settled by the government. The bureaucrats' tendency to broaden their authorities comes out in another situation that may be attributed to the third type of irrational behavior.

3.4. Parkinson's Law and Self-interest of the Bureaucrats

We should deal here with the opposite trend—a transfer of some competences to a lower, but a reporting-up level; and artificial complication of management structures. Cyril Parkinson gave support to the truth of this hypothesis saying: "a bureaucrat multiplies his subordinates, meaning he would shift his responsibilities onto their shoulders." (*Parkinson, 1957*).

According to Parkinson's law, the number of bureaucrats is increasing. Parkinson proposed a formula: $X = (2S^m + L) / N$, where S is the number of office workers hiring subordinates, L —the number of years in work; m —the number of hours spent processing the material, N —the number of necessary office workers; X —the number of new office workers hired in one year (*Parkinson, 1957*).

Despite the constant call to decrease management staff, the Russian administrative reforms did not stop uncontrolled growth of the number of government officers and bureaucratic burden on the economy. When we increase the authorities' power and promotion, a bureaucrat increases dilettantism and a number of ineffective management decisions. These circumstances decrease their ability to react flexibly to the new challenges and solve economic development problems (*Vassilenko, 2001*).

Bureaucrats' drive to concentrate power authorities and approach a budget pie would lead to the illegitimate capture of the "outside" (others') functions unusual for specific institutions and organs. The penetration of executive power into practice and authorities of local administration runs along the same lines.

The three investigated types of irrational behavior could be most frequently found in a situation with the fourth factor of bureaucrats' irrational behavior—their motive to increase personal well-being in all possible forms. At the same time, a balanced government system providing managers' interests (in case of perfect professional functioning) as well as management activities would increase the well-being of the bureaucrats (officers) and the society.

The circumstances of real life differ from theoretical constructions; a bureaucrat's personal interest does not meet the demands of government service and his job descriptions. History

and modern practice have not witnessed many situations where the systems of government regulation, economic stimulation measures and ethnic norms, fixed in the corresponding normative acts, based on specific and general legislation, would provide balance of interests. On the contrary, and in most cases, the analytics reveal self-interest and rent-seeking behavior of the bureaucrats, meaning the desire to profit from their position (*Krueger, 1990; Tullock et al., 2002; Winston, 2006*), which generates high corruption potential.

3.5. About the System of Government Administration

The discussed types of irrationality of bureaucracy do not reveal all the reasons for “bureaucrats’ failure.” Further investigation is necessary here; its results would give us an integrated picture of the behavior of this group of individuals that fundamentally differs from the behavior of economic agents by contents and aims of their activities—the latter are fixed by “the other people”—that shape up their job responsibilities. Here we always find a conflict between personal interests of the bureaucrats and the interests of society.

It is necessary to note that the temperature of a conflict depends not only on the design of the system of government administration, but on the civil culture of a certain society at a certain stage of development. Modern research reveals the links between institutions, economic decisions and culture (*Putnam, 1993; Alesina, Giuliano, 2016*). So it is necessary to learn the factors directly influencing bureaucrats’ behavior. Measured characteristics—such as “general trust”, “general morality” and “job behavior” (*Alesina, Giuliano, 2016, p. 91-93, 97-99*)—would determine the honesty, responsibility and faith of the bureaucrats, which influence their rational behavior.

K. Arrow puts it like this: “One can surely assert that a considerable portion of economic backwardness in the world may be explained by the lack of mutual trust” (*Arrow, 1972, p. 35*). Similar investigations should become, to our mind, a part of institutional modernization, and first and foremost of the administrative reform directed at the creation of a government system of administration, providing lower risks of “bureaucrats’ failure”. “Paternalist failures” alongside the institutional, distribution and behavioral failures would allow us to analyze them from the common grounds—namely as special cases within the general theory of mixed economy failures where the government acts as the pater (*Gorodetsky, Rubinstein, 2017, p. 32*). Paternalist failure clearly shows that government activities are accompanied by the risks of making wrong decisions enforced by undue practices.

It is necessary to pay special attention to the fact that “pater” itself is not able to eliminate the failure of the pater-government, compared to the standard mixed economy failures that would be removed by the government activities. It is odd to believe that Munchausen would draw himself from the swamp by his hair. And only the third participant of economic relations—a civil society (civil activity and self-organization if the citizens)—is able to create an institutional environment, capable of lowering the risks of wrong decisions, and providing social control within the system of government administration (table 1).

Table 1. Mixed Economy Failures

Mixed Economy Failures	Government Activities	
Institutional Failure	Pareto-ineffective balance (monopoly, externalities, information asymmetry etc.)	Paternalist activities of the government aimed at changing the institutional environment respecting freedom of consumer choice
Distribution Failure	Pareto-effective balance with unacceptable wealth distribution	Paternalist activities of the government aimed at changing the budget limitations of individuals (redistribution) respecting freedom of consumer choice
Behavior Failure	Individual irrational behavior	Paternalist activities of the government aimed at changing the consumer choice
Paternalist Failure	Failures of social choice Irrational bureaucrats' behavior	Civil activities aimed at democratization of social choice and lowering the risks of irrational bureaucrats' behavior

Thus, if the standard market failures—institutional, distributional and behavioral—influence government activities, the paternalist failure becomes the immediate consequence of this activity, and demands different actions—the actions directed at demonopolization of creating normative assumptions, introduction of procedures limiting the bureaucratic tyranny, lowering the risk of “bureaucrats’ failures” and associated losses in well-being.

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Bibliography

1. Alesina A., Giuliano P. (2016). Culture and Institutions. Part I. // *Voprosi Ekonomiki*. No. 10. Pp. 82-111 (in Russian).
2. Alson M. (2006). Dictatorship, Democracy and Development. In.: *Theory and Practice of Democracy. Selected Texts*. Moscow: Ladimir. Pp. 375-382 (in Russian).
3. Arrow K. (1972). Gifts and Exchanges // *Philosophy & Public Affairs*, Vol. 1. No. 4 (Summer, 1972). Pp. 343-362.
4. Blaug M. (1994). https://en.wikipedia.org/wiki/Mark_Blaug theory of well-being. In: *Economic Thought in Retrospective*. Moscow: Delo. Pp. 551-553 (in Russian).

5. Boudon R. (1979). *La Logique du Sociale: Introduction a L'analyse Sociologique*. Paris: Hachette.
6. Chesnokov S.V. (2000). "Sociology of Domination" by Max Weber through the Optics of the Theory of Supreme Power by L.A. Tikhomirov // *Political Studies*. No. 2. Pp. 161-171 (in Russian).
7. Crosier M. (1993). Modern State is a Humble State // *Svobodnaja Misl'*. No. 11. Pp. 9-15 (in Russian).
8. Dolfmsa W. (2013). *Government Failure. Society, Markets and Rules*. Cheltenham: Edward Elgar.
9. Gorodetsky A.Ye. (2016). Government Administration and Economic Security. About the Dysfunctions of Government Administration. // *Audit and Financial Analysis*. No. 6. Pp. 426-437 (in Russian).
10. Gorodetsky A.Ye., Rubinstein A. Ya. (2017). *Some Aspects of Economic Theory of State*. Moscow: Institute of Economics, RAS. 59 pp. (in Russian).
11. Grinberg R., Rubinstein A. (2005). *Economic Sociodynamics*. Berlin, Heidelberg, New York: Springer-Verlag.
12. Grinberg R.S., Rubinstein A.Ya. (2013). *Individual & State: Economic Dilemma*. Moscow: Ves' Mir (in Russian).
13. Hillman A.L. (2009). *State and Economic Policies. Chances and Limitations*. Moscow: NRU HSE (in Russian).
14. Kapelushnikov R.I. (2013). Behavioral Economics and the New Paternalism. // *Voprosi Ekonomiki*. No. 9. Pp. 66-90 (in Russian).
15. Kovelman A.B. (1996). *A Crowd and the Talmud. Jerusalem*, Moscow: Jewish University in Moscow (in Russian).
16. Krueger A. (1990). Government Failures in Development // *Journal of Economic Perspectives*. Vol. 4. Pp. 9-23.
17. Laffont J.J (2007). *Stimuli and Political Economy*. Moscow: NRU HSE (in Russian).
18. Margolis H. (1982). *Selfishness, Altruism and Rationality: A Theory of Social Choice*. Cambridge: Cambridge University Press.
19. Melnik D.V. (2015). Concept of Social Liberalism in the "Ideas' Market" of Modern Russia // *Social Sciences and Modernity*. No. 2. Pp. 43-53 (in Russian).
20. Mises L. von (2005). *Peoples Activity: a Treatise on Economic Theory*. Cheliabinsk: Socium (in Russian).
21. Obolonsky A.V. (2000). *Government Service*. Moscow: Delo (in Russian).
22. Obolonsky A.V. (2011). *Crisis of a Bureaucratic State: Reforms of the Government Service: International Experience and the Russian Realities*. Moscow: "Liberal Mission" Fund (in Russian).
23. Parkinson S.N. (1957). *Parkinson's Laws*; transl. by Trauberg N. Moscow: Progress (in Russian, 1989).
24. Polterovich V.M., Popov V.V. (2007). Democratization and Economic Growth // *Social Sciences and Modernity*. No. 2. Pp. 13-27 (in Russian).
25. Putnam R.D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.
26. Radigin A., Entov R. (2012). Government Failures: Theory and Politics // *Voprosi Ekonomiki*. No. 12. Pp. 4-30 (in Russian).
27. Rowley C.K. (1997). Donald Wittman's the Myth of Democratic Failure. Review Article // *Public Choice*. No. 92 (1-2). Pp. 15-26.
28. Rowley C.K., Vachris M.A. (1993). Snake Oil Economics Versus Public choice. In: C.K. Rowley (ed.) *Public Choice Theory*. Volume III. Aldershot (UK), Brookfield (USA): Edward Elgar Publishing. Pp. 573-584.
29. Rowley C.K., Vachris M.A. (2004). "Is Democracy Efficient?". In: *The Encyclopedia of Public Choice*. / C.K. Rowley, F. Schneider (eds.). Dordrecht, Boston: Kluwer Academic Publishers.
30. Rubinstein A. (2013). The Theory of "Patronized Goods" in the Optics of Comparative Methodology // *International Journal of Entrepreneurial Knowledge*. Vol. 1. Issue 1. Pp. 4-32.
31. Rubinstein A. (2017). Elements of the General Theory of the Failures of Mixed Economy // *Voprosi Gosudarstvennogo i Munitsipalnogo Upravleniya*. No. 1. Pp. 71-102 (in Russian).
32. Salamon L. (1987). *Partners in Public Service: The Scope and Theory of Government-Nonprofit Relations / The Nonprofit Sector: A Research Handbook*. Walter W. Powell (ed.). New Haven: Yale University. Pp. 99-117.
33. Smirnov S.N. (2009). Russian Bureaucracy and its Role in the Modernization in Russia // *Mir Rossii*. Vol. 18. No. 4. Pp. 115-139 (in Russian).
34. Stigler G. (1971). The Theory of Economic Regulation // *Bell Journal of Economics*. Vol. 2. Pp. 3-21.
35. Sunstein C., Thaler R. (2003). Libertarian Paternalism is not an Oxymoron // *University of Chicago Law Review*. Vol. 70. Pp. 1159-1202.
36. Tikhonova N.E. (2013). Social Liberalism: is There an Alternative? // *Social Sciences and Modernity*. No. 2. Pp. 32-44 (in Russian).
37. Tullock G., Seldon A., Brady G. (2002). *Government Failure: A Primer in Public Choice*. Washington: Cato Institute.
38. Urnov M.Yu. (2014). *Russia: Virtual and Real Political Future*. Moscow: NRU HSE (in Russian).

39. Vassilenko I.A. (2001). *State and Administrative Management in the Countries of the West: USA, Great Britain, France, Germany*. Moscow: Logos (in Russian).
40. Weber M. (1994). *Selected Works. An Image of Society*. Moscow: Urist.
41. Winston C. (2006). *Government Failure versus Market Failure. Microeconomics Policy Research and Government Performance*. Washington: AEI-Brookings Joint Center for Regulatory Studies.
42. Zinchenko G.P. (2002). Government Service: Dysfunctions and Deviations // *Chinovnik*. Issue 17 (in Russian).
43. Zverev A.F. (1992). Theory of Bureaucracy: from M. Weber to L. von Mises // *Gosudarstvo I Pravo*, No. 1. Pp. 89-95 (in Russian).

Power and Climate Change Governance: Negative Power Externality and the Brazilian Commitment to the Paris Agreement

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Abstract

Brazil is facing a climate change governance puzzle in which we can identify economic and political instabilities interacting in a conflicting manner with power relations. The exercise of institutionalized power through the national government and international institutions should be enough to reach an environmental second best outcome—the institutional power coordination of the environmental agenda. However, domestic governance and institutionalized power relations are working in a contradictory manner, since the second best solution is not enough to reach an effective agenda for climate change and sustainable development. We call this situation as a negative power externality. This could be a signal that the strictly economic view of the free market system is not sufficient to handle the environmental concerns and sustainable development policies.

1. Introduction

Although the attention paid to climate change by the government and civil society has been growing in Brazil over the last few decades, effective public policies are quite unstable. The short run economic and political agendas prevail over an integrated governance agenda for climate change and sustainable development. The gap between official speech and effective actions for climate change denotes an interplay among the uncertainties about the long run climate change impacts over the country, the abundance of natural resources, and the multiple policy cycles following political and economic circumstances.

For instance, before the impacts on climate materialize, the process of decision making has been filled with controversies and political conflicts about the sources of power that emerge from groups of interest and priorities that arise from the political-economic business cycles. In this sense, some authors have referred to climate change as a “wicked problem par excellence”, since it is hard to implement policies for governance adaptation and there are vested interests involved. (Rittel & Webber, 1973), (Lazarus, 2008), (Davoudi et al, 2009), (Jordan et al, 2010). Besides this, different levels of social power relations emerge from this scenario.

As Vink et al (2013) point out, the government’s adaptation to climate change might be characterized by inherent uncertainties, given the long term character of this policy issue,

the involvement of many interdependent actors with their own ambitions, preferences, responsibilities, problem framings and resources and the lack of a well-organized policy domain for enhancing and monitoring climate adaptation in the policy agenda. Following this view, though Brazil has ratified the Paris Agreement, we found evidence that the Brazilian society has been facing a climate change governance puzzle in which we can identify connections among economic and political problems and power relations. These problems are often interconnected with the three levels of social power: social potential power, institutionalized power and informal power.

These different forms of power are interconvertible and interact with other levels and types of social power, and the controversial actions the country has been taking concerning the climate change agenda is a result of negative power externality. In this sense, a negative power externality is a situation where the government and the society are conscientious about the challenges and risks of exploiting natural resources, but because there is flexibility and interchangeability between power relations jointly between the political-economic business cycles and governance agendas, the best choices in terms of climate and sustainable development policies are not made as expected and the environment is harmed.

This article suggests this concept as an idea of how to look for a more integrated approach in the environmental policy that deals with the interconnections among social power relations, economics and governance matters. This concept is called 'power externality'. After this introduction, this article proposes in Section 2 a theoretical way to integrate governance elements that have been applied to climate change negotiations in order to propose an analytical path relating them to economic welfare theory and social power relations. In Section 3, a brief case study is discussed considering the negative power externality situation Brazil is facing on its climate change agenda. In Section 4 we summarize the analytical potentials and limitations of this proposition and point out further research directions.

2. Climate Change Governance and Economic Efficiency

Sustainable climate policies are the most complex and arduous actions to be implemented by countries. The central problem is to motivate the society and governments to articulate individual and collective actions in order to do more than they would do under ordinary political and economic business scenarios. There are two traditional governance approaches to handle this: the top-down approach and the bottom-up approach. The top-down approach settles assurance problems through legally binding obligations. On the other hand, the bottom-up approach has confidence in transparent and voluntary commitments that are subject to regular reviews. A mixed approach is possible too. Following this method, countries accept a bottom-up structure in terms of framework conventions and then adopt top-down protocols within a convention that binds them to accomplish obligations.

In a strictly economic view, these governance approaches could be seen as a way to deal with the contentions between the global society's needs in terms of consumption and production and the scarcity of natural resources. A world of free market relations and spontaneous environmental and climate consensus, in terms of political thought and

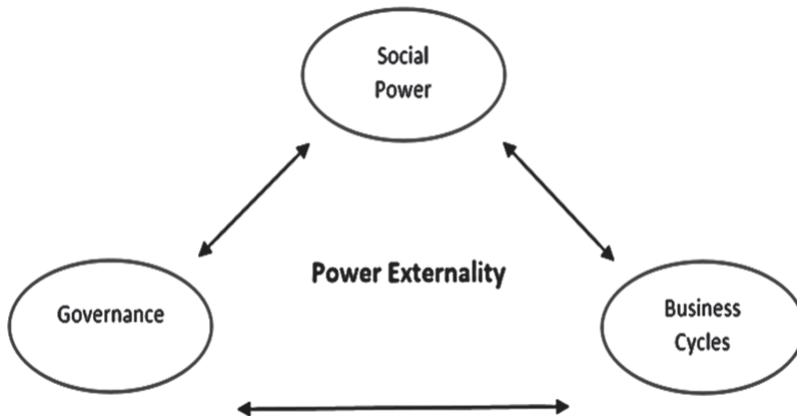
sustainable use of natural resources, can be seen as the first best outcome, as can be seen in the analogy of the Pareto efficiency criterion in the welfare theory in economics. The earliest works that support the efficiency criterion argument can be found in Pareto (1906) and Lancaster and Lipsey (1956). However, this scenario is not achievable. Therefore, the governance challenge faced by governments and civil society focuses on how to deal with the governance approaches, since countries across the world have different levels of development and socio-economic needs that frequently put in check the achievement of a climate change consensus.

For instance, the second best situation is more likely to be reached in the real world. Governance structures play a crucial role, in terms of the second best climate and environmental policies, since the first best option is never achievable. This means that the ideal or the first best solution of a full environmental consensus in terms of sustainable use of natural resources that would generate global efficiency is not feasible. In this situation, it is not clear if only one or a few environmentally committed countries will be able to increase the efficiency of climate policies as a whole. Thus, the countries may often have to negotiate in terms of governance structures that are more achievable, as we mentioned before.

The outcome of countries' negotiations is the second best solution and we consider that it denotes a result of exercising institutional power. Institutional power as a way of reaching the second best solution indicates an exercise of power through the authority of formal social systems and institutions—the national governments and international organizations like the United Nations and its leadership in the climate change negotiations.

2.1. Power Externalities

Figure 1: Power Externality Triangle



When we analyze the governance approaches involving the environmental and the climate change agendas in terms of welfare economic theory and social power relations, another

interconnection that could emerge is what we will describe as power externalities. In this sense, we can define power externality as a situation where the interconnected social power relations jointly with the political-economic business cycles and governance agendas affect a third part, in this case the environment, not directly related to this matter. Schematically, we can structure this argument as shown in Figure 1.

“Our conception of power externality considers the interconnections between economics and the entire system of social power relations and governance structures.”

Our argument is that since the economic decisions of production and consumption are interconnected with political and business cycles, power relations are the arena that governs these relations. In this sense, the power externality concept we are proposing is used in the same vein as in contemporary economic theory, but with a difference. Our conception of power externality considers the interconnections between economics and the entire system of social power relations and governance structures.

Power relations are very useful for economic and environmental discussions since they bring out principles about the reality of the social power relations: “a rational assessment of the present political, economic, social system needs to be founded on an understanding of the underlying reservoir of social potential, how it is converted into effective power, how power is distributed and how the special interests skew its distribution and usurp the power for private gain.” (Jacobs, 2016). This wave of thinking that emphasizes theories concerning human-centered development can also be seen in Nagan (2016).

Following this view, when society produces and consumes goods and services, beyond the demand and supply of socio-economic agents, there is a third part, external to this human mechanism that is affected in many ways. This part is the environment which faces the resulting effects of global warming and climate change. To handle the economic and political dilemmas that emerge from these connections, governance structures deal with the contentions that could arise from them.

We can have a negative and a positive power externality as we do in current economic theory. In this sense, a negative power externality is a situation where the government and the society are conscientious about the challenges and risks of exploiting natural resources, but because there is flexibility and interchangeability between power relations (jointly between the political-economic business cycles and governance agendas), the best choices in terms of climate and sustainable development policies are not made as expected and the environment is harmed.

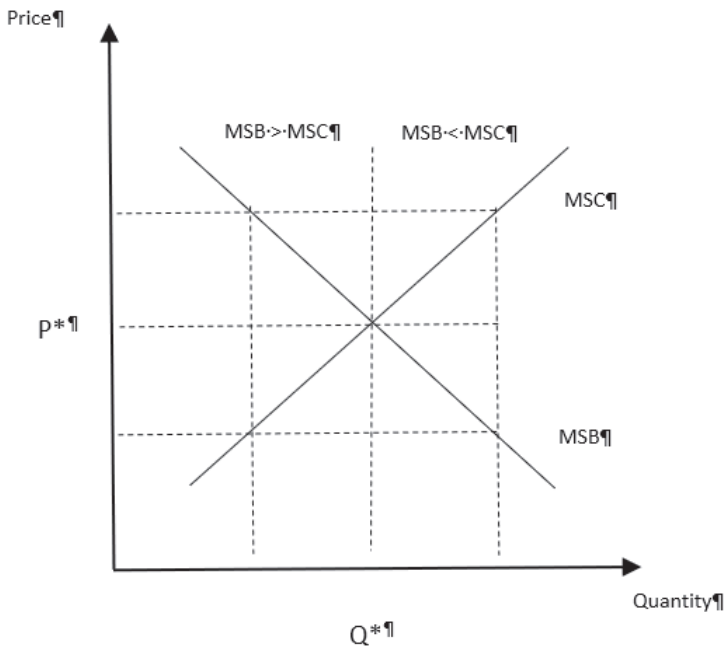
On the other hand, a positive power externality is a situation where the government and the society are conscientious about the challenges and risks of exploiting natural resources, there is flexibility and interchangeability between power relations (jointly between the political-economic business cycles and governance agendas), and the best choices in terms of climate

and sustainable development policies are more likely to be achieved and the environment is benefited. A positive power externality is a good outcome for the environment and the society as a whole since it leads to improvements in general.

In order to demonstrate this argument, we can use an analogy concerning the allocative market efficiency traditional approach in economics. We will define allocative efficiency in terms of two concepts: Marginal Social Cost (MSC) and Marginal Social Benefit (MSB). In this case, we will propose a definition connected with the power externality approach we are suggesting.

In this sense, MSC equals the extra cost to society of producing one more unit of output using natural resources. The law of diminishing returns implies that MSC will be sloping upward. MSB equals the extra benefit to society of consumption of one more unit of output using natural resources. The law of diminishing marginal utility implies that MSB will be sloping downward. This analysis is shown in Figure 2.

Figure 2: Allocative Market Efficiency



As long as MSB exceeds MSC, society is better off due to increasing output. In the opposite way, society is better off due to decreasing output as long as MSB is less than MSC. The allocative efficiency occurs where MSB is equal to MSC. In the market economy, the demand curve measures the maximum price (P) that consumers are willing to pay for a given

quantity of a good. In this way, the demand curve (D) is a measure of marginal benefit for all consumers in the market. In the absence of externalities, the market demand measures the MSB. Then, we can say that $MSB = D = P$. For the supply side of the economy, in perfect competitive markets, the supply side (S) is a measure of the marginal cost (MC). Consequently, in the absence of externalities, the marginal cost equals the marginal social cost. Similarly, we can say that $MSC = S = MC$.

In this sense, allocative market efficiency occurs whenever $MSB = MSC$. When a third part is harmed, we call this a negative externality. In terms of the allocative efficiency argument, MSC (which includes the cost to the third part) does not equal the supply curve. So, MSC exceeds the supply curve. On the other hand, when a third part is benefited, we call this a positive externality. It occurs when the MSB (which includes the benefit to the third part) does not equal the demand curve. Hence, the MSB exceeds the demand curve. Despite the traditional graph approach we are presenting, a more formal development in welfare theory of externalities can be seen in Lin & Whitcomb (1976). We can also find a modern approach in Berta (2017).

Negative and positive externalities, strictly in the traditional economic sense, are shown in Figure 3 and Figure 4. These examples deal with the approaches of making furniture by cutting down rainforests (Figure 3) and consumption of clean energy, like eolic energy (Figure 4).

Figure 3: Negative Externality

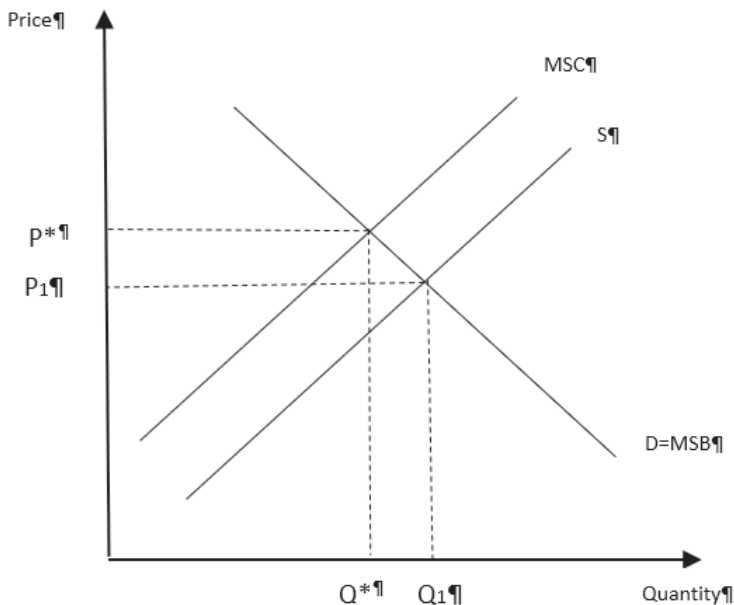
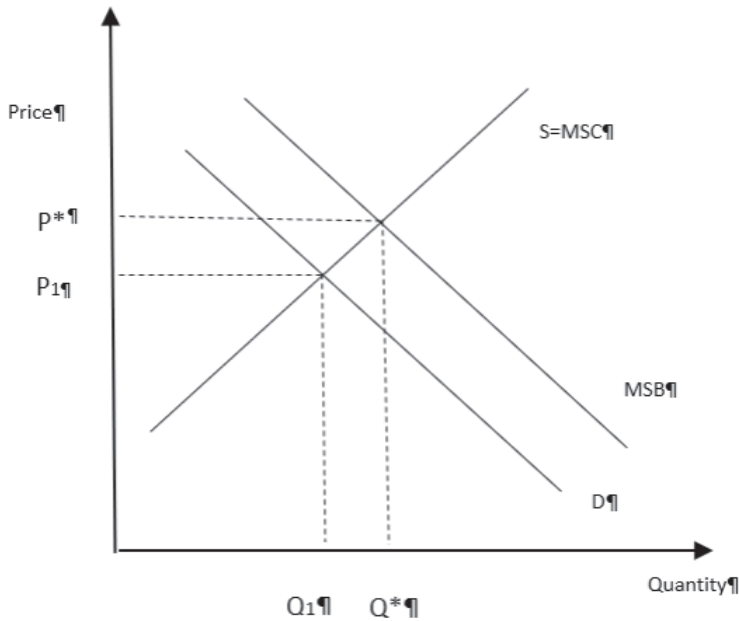


Figure 4: Positive Externality



In both graphs, the market equilibrium provides resource allocation where demand (D curve) equals supply (S curve), which occurs in both graphs at point P_1Q_1 . Therefore, the market price is given by P_1 and market quantity of resources allocated is represented by Q_1 . However, allocative efficiency occurs where the MSB curve equals the MSC curve, that is, at point P^*Q^* . As a result, when there are externalities in perfect free markets, resources will be misallocated and the market will be inefficient. This means that an idealistic world consensus on sustainable use of natural resources is not achievable.

When there is a negative externality, the market equilibrium will produce too much output at a low price. In environmental terms, this means that the exploitation of natural resources is excessive and undervalued. In the case of positive power externalities, the market will produce too little at a low price. This means low productivity and undervaluation of production.

As demonstrated before, both types of externalities end in allocative inefficiency. This allocative inefficiency could be interpreted the following way: due to flexibility and interchangeability between power relations and political-economic governance agendas, the first best solution, in terms of free competitive markets, or the first best choices, in terms of spontaneous and consensual climate and environmental development policies, are not made as expected. In this sense, climate policies are a result of institutional power relations and the second best environmental solution. In this context, the second best solution gives us a

way to overcome power externalities through institutional power intervention jointly with an appropriate governance scheme. For instance, national and international organizations, as well as government institutions in all levels, can do it.

“The principle of economic externalities partially considers the effect of human exchanges over an agent external to this mechanism because it sees only the market logic, without considering the integrality of all elements involved in economic activity.”

2.2. Overcoming Power Externalities

A way to overcome power externalities is to apply appropriate public policies in the exercise of institutionalized power by governments (or international organizations), since the economic agents do not consider the entire effects of their activities over nature or the society as a whole. As Pigou (1920) noted in his book *The Economics of Welfare*, “private business pursued their own marginal private interests. Industrialists were not concerned with external costs to others in society” (or in the environment), since they have no incentives to internalize the full social costs of their actions. This is an early exposition of the externality concept. Likewise, Pigouvian taxes are corrective taxes, which are used in order to diminish the consequences of negative externalities. Alternatively, subsidies stimulate positive externalities. A more recent approach of Pigouvian taxes can be found in Broadway and Tremblay (2008).

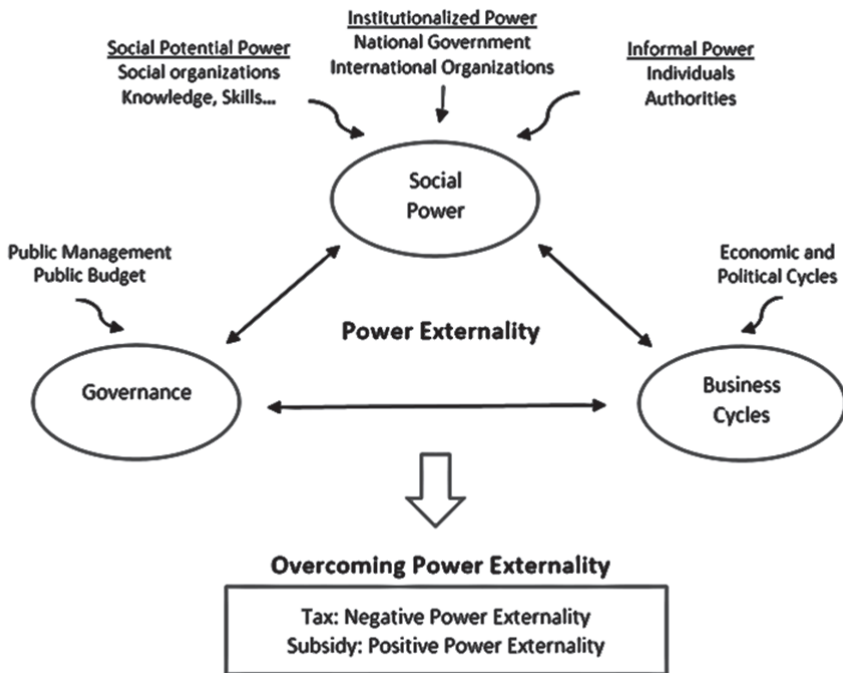
In Figure 3, we have analyzed a negative power externality in production. For example, making furniture by cutting down rainforests leads to a negative power externality to the environment and other individuals in general. The marginal social cost is greater than the individual cost of production. In this case, we clearly see that the society and government are conscientious about the risks and losses ahead, but because the power relations interact jointly with political and economic interests, the best choices in terms of sustainable development policies are not fulfilled. In this case, a fast way to overcome this situation is to exercise institutional power by means of applying public and tax policies through a domestic governance channel that harms the private political and economic interests that cause this injury to the environment.

We see a case of positive power externality in consumption (Figure 4). If you or your city makes use of clean energy, everyone can benefit from this consumption, including the environment. The marginal social benefit from consuming clean energy is greater than individual benefit. Therefore, making use of correct public policies and the mechanisms of governance together with social power relations is a better way for the society to reach a sustainable development agenda.

We may use traditional economic theory’s principles in an interdisciplinary manner. Though economic theory provides important elements for understanding the allocative principles of the market, it is necessary to go beyond these principles. The analysis of economic efficiency and welfare theory gave us just few insights into the importance of considering that there is another entity external to this mechanism, which is also affected by human economic activities, besides the economic agents directly related to the market. This perspective shows how narrow the idea of thinking is, that the market logic alone would solve the inherent problems of the society.

We can think this through with respect to the environment. It is an entity external to economic activities but directly suffers the effects of them. The principle of economic externalities partially considers the effect of human exchanges over an agent external to this mechanism because it sees only the market logic, without considering the integrality of all elements involved in economic activity. In Figure 5, we can see a more complete perspective of the power externality triangle considering different levels of social power, some governance subjects and the political and economic cycles (business cycles). We suggest that the two ways of overcoming externalities should comprise all aspects of the power externality triangle.

Figure 5: Power Externality Triangle: Overcoming Power Externality



Of course, the traditional Pigouvian taxation solution in economics is not the only way to overcome externalities. Nor is it the only analytical way of dealing with externalities in welfare economics. However, our intention is not to strictly follow the neoclassical economic view. We are making inferences with it and pointing gaps which could be useful to design new elements of a more integrated way of thinking. In this sense, we will consider it just as a starting point in our theoretical proposition.

Additionally, we should consider the possibility that these ways of overcoming power externalities do not work at all, since governments may not have enough money or a provisional budget to deal with subsidies in order to improve a positive power externality. On the other hand, governments cannot apply appropriate tax policies in order to correct negative power externalities. Still, there is a chance that groups of interest may interfere in the process of public policies in power externalities due to conflicts about interests and priorities.

With this in mind, let us reflect on the power externality triangle we are proposing. It shows us that beyond the business cycles concept (which encompasses the economic and political cycles), there are two more concepts embracing the governance and social power subjects. These three concepts put together demonstrate that climate change challenges need critical thought and effective action on the part of civil society, business actors, institutions and governments. Despite this, nations' climate change policies, in terms of effective public policies and societal actions, are not being made in unconditional ways as they should be, as pointed out by Repetto (2008), Biesbroek et al (2010), Keskitalo (2010), Berrang-Ford et al (2011), Ford & Berrang Ford (2011), Wolf (2011) and Jens (2017).

In this sense, we propose a way of thinking about the environmental and climatic issue beyond economics. Our intention is to provide future insights that consider interdisciplinary correlations. This may be an alternative analytical path in terms of propositions for a new economic theory in order to broaden the understanding of the complex phenomena regarding economic intervention and social power relations in climate change governance. In this sense, the next section is a preliminary empirical proposition of a more integrated analysis of the climate change problem considering the interdisciplinary mechanism with social power relations, economics and governance approaches.

3. Evidences of Recent Negative Power Externalities in the Brazilian Climate Change Agenda

Brazil has a legacy of relevant institutional contributions in climate conferences. Brazilian negotiators actively participated in the creation of consensus for the elaboration of the Paris Agreement. Another Brazilian contribution was the suggestion of the design of an instrument that later came to be the reduction of emissions from deforestation and forest degradation, globally incorporated within the scope of the United Nations Framework Convention on Climate Change (UNFCCC).

Nevertheless, at the national level, recent economic and political instabilities reveal limits and inefficiencies in Brazilian governance with negative implications for the implementation of its climate policy. After a good performance of reductions in deforestation in 2012 and

emissions of greenhouse gases, the environmental agenda since 2015 showed setbacks regarding protection of forests and the ways of life of indigenous people and traditional communities. Recent data on the increasing greenhouse gas emissions of key economic sectors, released by the greenhouse gas emission estimate system, showed risks in the achievement of climate policy objectives and goals established before.

This means that, although the Brazilian government has ratified the Paris Agreement, a significant step by Latin America's largest emitter of greenhouse gases, effective and definitive climate actions remain a challenge that is subject to political-economic business cycles. According to United Nations data, Brazil currently emits approximately 2.5 percent of the world's carbon dioxide and other polluting gases. This is in contrast with its performance last decade where Brazil achieved significant emissions cuts, thanks to its efforts to reduce deforestation in the rain forests and increase the use of renewable sources of energy including hydropower, wind, solar and biomass.

We should remember that countries set their own targets for reducing emissions. The targets are not legally binding, but nations must update them every five years. Using the 2005 levels as the baseline, Brazil has committed to cutting emissions 37 percent by 2025 and there is an intended reduction of 43 percent by 2030. However, after almost three years of a deep economic recession and political crisis, this aim may not be achieved.

The country is faced with the challenge of recovering economic growth and to remodel the domestic political governance structure that suffers from instabilities and corruption. Although the country had committed before to follow a way of recovering economic growth jointly with sustainable development policies with a focus on the aspects of climate change and reduction of greenhouse gases emissions, the current government is embracing the opposite way, such as the cut in the budget of the Ministry of the Environment and amnesty to invaders of public lands.

Another action that demonstrates the current regression in environmental policies was the government's bet on fossil fuels. The 2026 10-year Energy Plan projects that 70.5 percent of the investments in the energy matrix over the next ten years will go to oil, especially in the exploration of pre-salt reserves. We see a profound contradiction in the environmental policies previously envisaged in the 10-year Energy Plan, since it was originally formulated as a climate change mitigation plan. This is contrary to the country's own strategic interests. Brazil has several energy solutions in terms of clean technologies such as biomass and biofuels. In addition, the current Temer Government will approve provisional measure number 795, thereby establishing tax exemptions for oil companies.

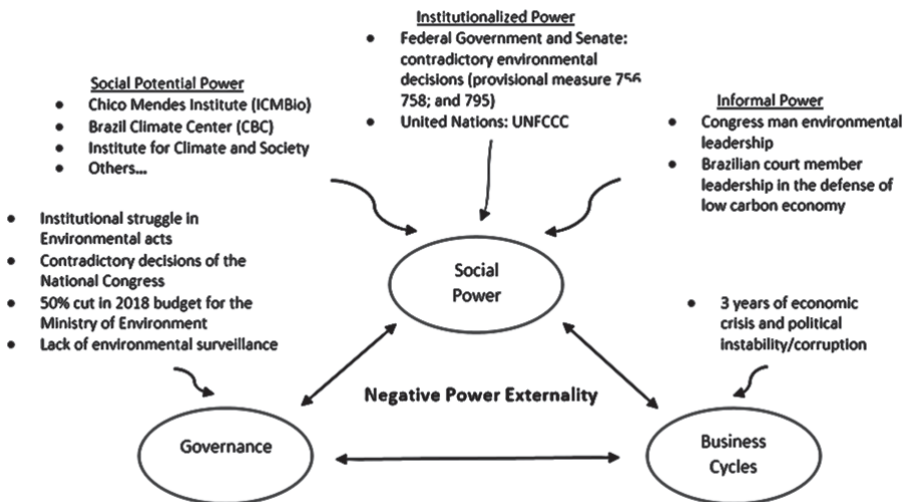
In this sense, at the national level, the Brazilian environmental policy is going backwards. Additionally, the economic and political crisis in the last three years has influenced negatively the short run government policies since the country faced huge budget constraints, and the most common way of recovering the economy is to appeal to the traditional matrices of production like the oil chain and fossil fuels. Nowadays, there is a lack of effective management and surveillance in the environmental policies that were previously established. This problem became worse when the government announced a cut of fifty percent in the

provisions for inspection and environmental surveillance in the 2018 budget of the Ministry of Environment.

“The Paris Agreement has the ability to convert and channel environmental goals into actions through consensual resolutions.”

We should note that the Brazilian society has been living in a climate change governance puzzle for the last three years. The economic crisis, the political instabilities and different sources of social power are interacting in a way that damages the previous environmental commitments. The main power relations that govern this situation are the international institutionalized power and the Brazilian government power. At an international level, we have the institutionalized power relations built in the United Nations and performed through the Paris Agreement and the recent COP 23, held in Bonn, Germany. The required course of action is to inspire the Brazilian government to review and rethink its efforts in promoting actions and measures for mitigation of greenhouse emissions. As mentioned earlier, institutional power gives us the second best solution and denotes the exercise of power through the authority of formal social systems and institutions.

Figure 6: Negative Power Externality Triangle: The Brazilian Climate Case



A way to endorse this is through the bottom-up and top-down governance structures, as discussed before. As an international treaty under the United Nations’ protocols, the Paris Agreement has the ability to convert and channel environmental goals into actions through

consensual resolutions. The Brazilian government exercises power through the authority of formal institutional systems. In the past, the country had a legacy of important contributions in terms of political proposals and technical body. Now it has declined its performance in terms of leadership in reducing greenhouse emissions and coordination of effective environmental efforts.

“The economic view of free market system is not sufficient to handle the environmental concerns and sustainable development policies.”

We must not forget that together with institutional power there are other potential and informal sources of social power like civil society organizations and groups of environmentalists acting in many ways, inside and outside the country. These are important means for disseminating environmental thinking in order to influence and mobilize effective efforts towards sustainable development policies. Furthermore, these social groups of environmental interest help to combat the political and economic individualist way of thinking that neglects nature and gives it the least priority. With this in mind, we could schematize the negative power externality situation Brazil is facing (Figure 6).

Figure 6 shows us some examples of domestic actions among the three pillars of the power externality triangle. The negative power externality is a combination of diverse elements, which results in injuries to the environment and delays in the accomplishment of climate commitments. Additionally, as we can see on the governance side, there is an absence of strong governance structures and sustainable public policies to overcome the negative power externality in Brazil. In this sense, when contradictory environmental governance actions in the public sector are put together with circumstances of economic crisis and political instability, the effects on climate change policies are quite conflicting, since the fastest way to achieve economic recovery consists in making use of traditional sources of production and energy together. This situation leads to a failure to fulfill the environmental commitments made before.

4. Concluding Remarks

Brazil is facing a climate change governance puzzle in which we can identify economic and political instabilities interacting in a conflicting manner with power relations. The exercise of institutionalized power through the national government and international institutions should be enough to reach an environmental second best outcome—the institutional power coordination of the environmental arrangements. However, the domestic governance and institutionalized power relations are working in a contradictory manner, since the second best solution is not enough to reach an effective agenda for climate change and sustainable development. This is a signal that the economic view of free market system is not sufficient to handle the environmental concerns and sustainable development policies.

In the same context, the free market system generates externalities over the third parties. The environment is seriously damaged due to economic activities as an entity and should not be treated as an object subjected to economic exploitation. Therefore, we should perceive that the efficiency criterion behind the neoclassical postulates is full of gaps. Additionally, we have political instabilities and economic crisis when the institutionalized power relations are working in a conflicting manner. In this sense, we are proposing a more integrated system of analysis through an analytical framework for formulation of public policies and decision-making.

The concept of power externality comprises this proposition. It aims to consider social power relations as the main vertex of the governance puzzle triangle that contemplates the economic market system (with its inherent contradictions) and governance aspects. The negative power externality Brazil faces is a result of the interconnected relations of these three spheres of analytical thought. In the recent Brazilian case, they are influencing the environmental agenda negatively. The Brazilian case we have explored is just a brief example of a future empirical research agenda that may explore this concept and its multidisciplinary interconnections.

The notion of power externality reflects the effects of the power relations and the political-economic activities over the society and the ecosystem. Accordingly, in a situation of negative power externality, although the society and the government are conscientious about the risks and losses ahead, because of the interchangeability between power relations jointly with the business cycles, the best choices in terms of climate change policies and sustainable development are not fulfilled as expected.

Although a negative power externality reflects biases in driving public environmental policies, it must not be a permanent situation, since it could oscillate according to the multiple elements of the dynamic power externality triangle. In this sense, whenever a part of the triangle works in a bad sense in terms of the economic and environmental system as a whole, the power relations could work jointly with the public policies and the governance structures in order to reach an integrated reorientation of the power externality triangle.

As a starting point, the concept of power externality must be further developed considering the dynamic interconnections among economics, governance and social power relations. As we seek to make evident throughout this study, the power externality concept throws light on the gaps of a strictly economic view in order to emphasize the need for a more complete way of theoretical thinking which reveals that the market logic alone cannot be considered when we consider environmental concerns. Actually, it encompasses many agents (or actors) and must contemplate the intrinsic relationship among society, governance structures, environment, politics, economics and social power relations. Further research plans could also be considered to develop a more detailed theoretical system about the nature of power relations in economics and global governance.

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Bibliography

1. Rittel, H. W. J. and M. M. Weber, "Dilemmas in a General Theory of Planning," *Policy Sciences* 4, (1973): 155-169.
2. Lazarus, R. J., "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future," *Cornell Law Review* 94, (2008): 1153-1233.
3. Davoudi, S., J. Crawford and A. Mehmood, *Planning for Climate Change: Strategies for Mitigation and Adaptation for Spatial Planners*, (London/UK: Earthscan/James and James, 2009).
4. Jordan A., D. Huitema, H. van Asselt, T. Rayner and F. Berkhout, eds., *Climate Change Policy in the European Union: Confronting the Dilemmas of Mitigation and Adaptation?* (Cambridge/UK: Cambridge University Press, 2010).
5. Martinus J. Vink, Art Dewulf and Catrien Termeer. "The Role of Knowledge and Power in Climate Change Adaptation Governance: A Systematic Literature Review," *Ecology and Society* 18, no. 4, (2013): 46.
6. Vilfredo Pareto, *Manual of Political Economy* (London: Macmillan, 1906).
7. Elvin Lancaster and Richard G. Lipsey, "The General Theory of Second Best," *The Review of Economic Studies* 24, no. 1 (1956): 11-32.
8. Garry Jacobs, "Foundations of Economic Theory: Markets, Money, Social Power and Human Welfare," *Cadmus* 2, Issue 6, May (2016): 20-42.
9. Winston P. Nagan, "The Concept, Basis and Implications of Human-Centered Development," *Cadmus* 3, no. 1, oct (2016): 27-35.
10. Steven A. Y. Lin and David K. Whitcomb, "Externality Taxes and Subsidies" in *Theory and Measurement of Economic Externalities*, Steven A. Y. Lin (New York: Academic Press, 1976).
11. Nathalie Berta, "On the Definition of Externality as a Missing Market," *The European Journal of the History of Economic Thought* 24, no. 2 (2017).
12. Arthur C. Pigou, *The Economics of Welfare*, 4th ed. (London: Macmillan, 1932).
13. Robin Broadway and Jean-François Tremblay, "Pigouvian Taxation in a Ramsey World," *Asia-Pacific Journal of Accounting Economics* 15, no. 2 (2008).
14. Repetto, R. "The Climate Crisis and the Adaptation Myth," Working Paper n. 13, *Yale School of Forestry and Environmental Studies*, (2008).
15. Biesbroek, G. R., et al., "Europe Adapts to Climate Change: Comparing National Adaptation Strategies," *Global Environmental Change* 20, (2010): 440-450.
16. Keskkitalo, E. C. H., *Developing Adaptation Policy and Practice in Europe: Multi-level Governance of Climate Change* (New York: Springer, 2010).
17. Berrang-Ford, L., J. D. Ford and J. Paterson, "Are We Adapting to Climate Change?," *Global Environmental Change* 21, (2011): 25-33.
18. Ford, J. D. and L. Berrang-Ford, eds., *Climate Change Adaptation in Developed Nations: From Theory to Practice. Advances in Global Change Research* 42. (New York: Springer Science+Business, 2011).
19. Wolf, J., *Climate Change Adaptation as Social Process*, in *Climate Change Adaptation in Developed Nations: From Theory to Practice*, J. D. Ford and L. Berrang-Ford, eds., (New York: Springer, 2011).
20. Marquardt Jens, "Conceptualizing Power in Multi-level Climate Governance," *Journal of Cleaner Production* 154, (2017): 167-175.

Special Announcement: Profiles of 40 Notable Leaders

Prepared by Michael Marien & Dikshya Devkota

The Security & Sustainability Guide, a project of WAAS in development, identifies more than 2,000 organizations concerned with aspects of security and/or sustainability. A special section of the Guide provides 40 brief profiles of individuals who have made or are making important contributions to security and/or sustainability thinking and policies, through their research, outreach, and writing, and/or by creating or leading important organizations. Most of the leaders profiled below are associated with one or more major organizations in the Guide.

This section was too lengthy for publication in *CADMUS*, but it can be accessed at <http://seuresustain.org/the-guide/notable-individuals>. The following leaders are included:

Kofi Annan (Ghana; Peace & Sustainability)	Frances Moore Lappé (US; Food & Hunger)
Michael Bloomberg (US; Green Cities)	Amory Lovins (US; Energy Efficiency)
Lester R. Brown (US; Earth Policy)	Federico Mayor Zaragoza (Spain; Peace Culture)
Gro Harlem Brundtland (Norway; 1987 Report)	Bill McKibben (US; 350.org)
Mely Caballero-Anthony (Singapore; Security)	Ernest J. Moniz (US; Nuclear Threats)
Helen Caldicott (Australia; Anti-Nuclear Author)	Rajendra Pachauri (India; IPCC, Climate Change)
Robert Costanza (US/Australia; Green Economics)	Karl-Henrik Robert (Sweden, The Natural Step)
Paul J. Crutzen (Netherlands/Sweden; Anthropocene)	Mary Robinson (Ireland; Human Rights)
Herman E. Daly (US; Steady-State Economics)	Johan Rockström (Sweden; Planet Boundaries)
Sylvia A. Earle (US; Oceans)	Jeffrey Sachs (US; Sustainable Devel. Goals)
Paul Ekins (UK; Green Growth)	Hans Joachim Schellnhuber (Germany; Climate)
Christiana Figueres (Costa Rica; UNFCCC)	Vandana Shiva (India; Organic Agriculture)
Tim Flannery (Australia; Climate Change)	James Gustave Speth (US; Environmental Law)
Carl Folke (Sweden; Integrative Science)	Will Steffen (Australia; Anthropocene)
Jerome Glenn (US; Millennium Project)	Nicholas Stern (UK; Climate Change Costs)
Al Gore (US; Climate Change)	David Suzuki (Canada; Sustainability Popularizer)
James E. Hansen (US; Climate Change)	M.S. Swaminathan (India; Green Revolution)
Paul Hawken (US; Project Drawdown)	Mathis Wackernagel (US; Global Footprint)
Hazel Henderson (US; Evolutionary Economics)	Peter Wadhams (UK; Arctic Death Spiral)
Tim Jackson (UK; Ecological Economics)	Ernst U. von Weizsäcker (Germany; Resources)

The purposes for preparing these profiles:

1. To illustrate the wide variety of ways to promote security and/or sustainability;
2. To recognize past and present leaders;
3. To learn about their major accomplishments and organization affiliations;
4. To inspire a new generation of leaders for the difficult decades ahead;
5. To widen and deepen horizons in thinking about future security and sustainability.

In future, humanitarian, development and peacebuilding activities will have to be more “risk informed” and sustainable. This will require a fundamental change from planning and programming “risk-insensitive” political priorities towards establishing a world-wide practice of long-term strategic planning.

Donato Kiniger-Passigli, Fragile Contexts & People-Centred Preventive Actions

There should be a far-reaching shift from the outdated Bretton Woods Agreement to creating a “new global social contract” which will effectively contribute to the development of a more democratic global governance model.

Erich Hoedl, Contribution of the Economy to Emerging Global Governance

We need to elevate the teaching profession, work on developing the political and cultural environment required for educating the next generation responsibly, in a way that would hopefully foster a more equitable world.

Carlos Blanco-Pérez, Alexandre Pérez-Casares & Ramón Rodríguez-Riesco, Educating for the Future: Empowering the Human Mind & Redefining Values

We already possess all the technological tools, innovative social strategies and human knowhow to achieve more equitable, sustainable global societies. What we need now are willpower, democratic political leadership and widespread participatory vision.

Hazel Henderson, The Politics of Connectivity

No one has a right to unlimited self-determination, or to the unlimited exercise of power. All states, institutions, bodies and actors are in one way or another accountable to others.

Jo Leinen and Andreas Bummel, The Need for a Global Government

Global crises raise challenges that cannot be resolved by any single country. Societies are interconnected and cannot act in isolation. It is the responsibility of every one of us to bind the community of humanity together, to build a common space that excludes no one, regardless of continent, origin, age or gender.

*Elif Çepni, Who should Govern on what principles?
The Future of Decision Making*

In the real world there are no perfect institutional conditions, where self-regulating mechanisms would work without mistakes.

*Ruslan Grinberg & Alexander Rubinstein,
Towards a New Economic Theory of the State*

Our conception of power externality considers the interconnections between economics and the entire system of social power relations and governance structures.

Danielle Sandi Pinheiro, Power & Climate Change Governance

We need a fair dose of humility and wisdom to remember that all our scientific work is a product of human consciousness.

William Byers, What is Reason?

The aspirations and intentions of the leader awaken and release the energy of other individuals. The adoption of the SDGs is a rare and remarkable instance of leadership.

Garry Jacobs, Donato Kiniger-Passigli & David Chikvaidze, Global Leadership in the 21st Century

The need of the hour is for the gradual emergence of effective institutions for global governance founded on an awakened sense of the psychological unity of all human beings.

Ashok Natarajan, Ideas that Changed the World

Social evolution is the evolution of social consciousness.

Dimitar Tchurovsky, Mankind at the Crossroads

New economics will arrive and endure only with wider cooperation among dissident economists, and an effective strategy to promote the value of nature's services, alternative measures to GNP, the role of social capital.

*Michael Marien & David Harries,
Ten Essential Ideas for Sustainability Leaders*

To achieve harmony, democracy requires rationality and organizational methodology from citizens and politicians.

*Philippe Destatte, Some "New" Governance
Models for Europe and the US*

We do not need to 'patch up' a globalist model of governance, but to rethink with fresh ideas as to how we can bring about a new paradigm in governance.

*Fadwa El Guindi, Toward a New Paradigm of
World Governance*

In the shorter-term, SCI probably is the most effective way to drive the systemic changes needed to achieve the SDGs and maximize the long-term well-being of humanity.

Frank Dixon, SCI and the SDGs

Continued...
