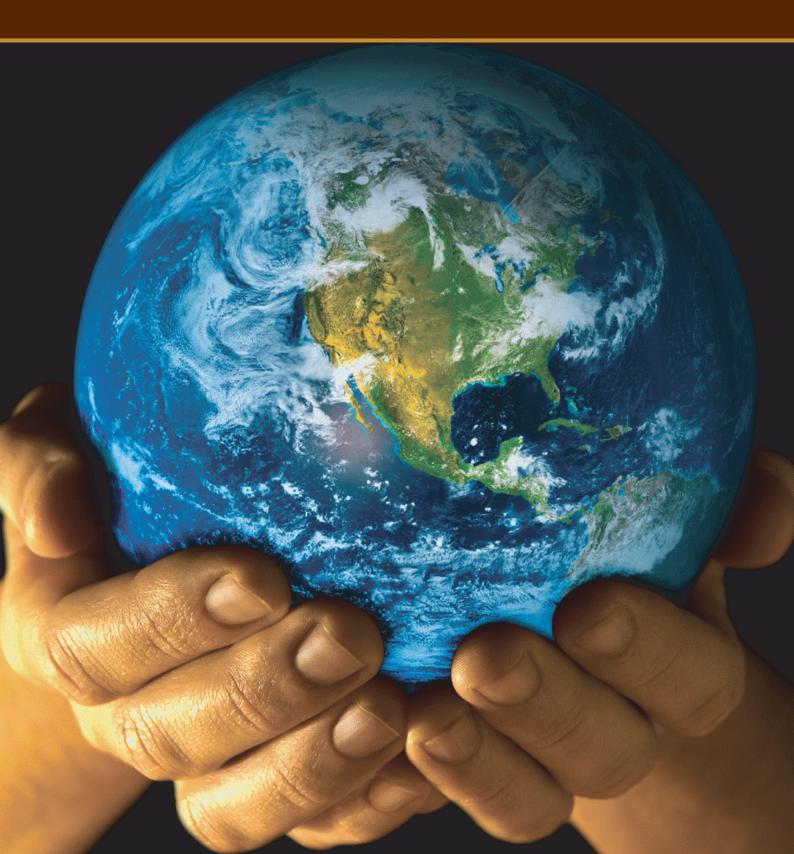
INITIATING A GLOBAL STRATEGIC NARRATIVE

A Call for Sustainable Development Through Strategic Research and Transformative Education

by Mr. Z





Initiating a "Global Strategic Narrative"

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Abstract. A recent series of events have given credence to the call for transforming global education and a more global and holistic assessment of the 21st Century threats to humanity and all the world's nations. Some of these threats represent emerging, complex global challenges whose solutions will require international cooperation by all the world's nation states. For this reason, the authors have written this paper as a call for a *Global Strategic Narrative* and the establishment of international partnerships that will facilitate a global dialogue and the cooperation needed to respond to emerging global security problems. The Japanese nuclear crisis at Fukushima, the impact of carbon based energy sources on climate change, growing worldwide food and water shortages, the historic downgrade of the American government's credit rating, the European financial system on the brink of collapse, severe damage to the world's oceans, global job migration and criminal and terrorist acts on land, at sea and in cyberspace all illustrate key security issues stemming from globalization. They preclude any narrow focus on 'national' approaches to the development of broad sustainable solutions. Further, the slow progress in responding to these events suggests that 'sustainability' is a matter inclusive of, but much broader than, national interests, economic security and profitability.

To support the call for a more global dialogue, this paper provides several examples of serious threats to human security that mandate a closer worldwide examination of the complex, unsustainable economic, social and political systems that evolved during the Cold War and have been propelled in the last few decades by the rapid expansion of globalization. Further, we posit that we are entering a condition of increasingly unmanageable economic, political and social pressures. New social, political and educational paradigms combined with rapidly developing technologies are urgently needed to meet the common security threats of the 21st Century. This article accompanies the establishment of a new global forum and membership organization to facilitate the development of a *Global Strategic Narrative through collaborative networks, strategic research and most importantly, transformative education*.

Key Words: Sustainable Development, Transformative Education, Strategic Research, Global Challenges, Strategic Narratives, United Nations, Multinational Corporations, Global Civil Society.

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Introduction

Twenty years after the 1992 Earth Summit in Rio, where countries adopted Agenda 21 - a global blueprint 'to rethink economic growth, advance social equity and ensure environmental protection,'¹ the U.N. Conference on Sustainable Development took place in Rio de Janeiro, Brazil, in June 2012, popularly known as Rio+20. Like the U.N. Climate Change Conference in Copenhagen, Denmark in December 2009, Rio+20 was another missed opportunity, failing to forge more effective partnerships to address emerging global risks and threats to our common well-being. Governments, international institutions, and major groups from all of the global civil society did little to improve international coordination for sustainable development.

One could interpret this as a failure of the world's most powerful nation states to allow the United Nations to achieve any of the four primary purposes listed in the U.N. Charter of 1945. In particular, Article 1 reads:

The Purposes of the United Nations are:

- 1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;
- 2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;
- 3. To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and
- 4. To be a centre for harmonizing the actions of nations in the attainment of these common ends.

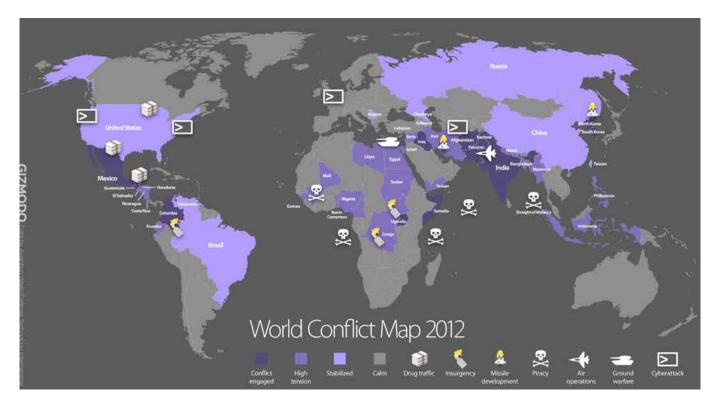
The inability of the U.S., China, Russia and the other U.N. leading nations to come to political agreement is reflected in the 40-60 armed conflicts and skirmishes around the world in 2012-13. The figure below, which shows conflict exists on nearly every continent,² helps visualize the result of the U.N.'s leading nations inability or refusal to take collective action on the prevention of conflict (Purpose #1).

1 See the UN's website for RIO+20 online at: http://www.un.org/en/ecosoc/about/uncsd-rio.shtml. 2 http://gizmodo.com/5875194/all-the-worlds-wars-and-conflicts-coming-in-2012



This article focuses on the challenges mentioned in Purpose #3 concerning international cooperation and calls for the development of a Global Strategic Narrative and dialogue amongst universities, think-tanks and research organizations throughout the world to explore how better to achieve the goals associated with Purpose #4.

It is doubtful that a U.N. that is restricted by major power vetos and massively competitive economic systems, which are driven by a relatively small number of large multinational corporations and super wealthy individuals, will be able to contribute much to Purposes 3 & 4 without major modifications to the U.N. Charter and operational procedures. It is time to re-think the U.N. Charter's goals and means to address shared global risks and bring to bear new thinking, new concepts, new mechanisms, and new means to achieve global security in the 21st century. To be fair, the U.N. agencies have contributed enormously to the short-term solutions to worldwide hunger, policing violence in many parts of the world, helping with world health and the monitoring of human rights. But this is almost always in a reaction mode and what is needed in the future is pro-active leadership in a true global discussion and joint development of solutions to the common security challenges facing all nations and the entire world. The U.N. cannot be expected to carry the burden alone.





Today, unsustainable economies and development, driven by unregulated, 'too large to fail' banks and global corporations are also contributing to some of the greatest threats to 21st century global security. We agree with Steve Cohen, Executive Director of Columbia University's Earth Institute that 'The current approach to economic life has created a lifestyle our forbearers couldn't even dream of, but it cannot be sustained without a revolution in management, technology and scientific understanding of our home planet.'³ We would add, to move the world in a new, safe direction new models of education and communication are needed. While there were several references to education in the final Rio+20 Summit document, unfortunately, they were vague and tended to be clumped together with other general social issues. We propose that sustainable development is only achievable if the world develops and introduces new transformative models of education for sustainability at all levels of the global society.

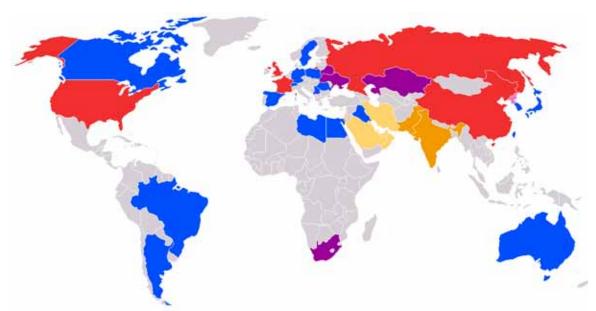
We now confront challenges and threats that few could have imagined a half-century ago. Most of the serious, long-term threats to both national and global security and prosperity are no longer primarily military in nature. Many of these threats are now *transnational*; they are shared threats that reflect new vulnerabilities, and will require fundamentally new concepts of security and strategy. The global community is beginning to recognize that these threats are derived from the growth of unsustainable economic and development systems worldwide that must be addressed, not just by individual nations, but also through global partnerships that address threatening contemporary challenges and risks. There is an urgent need for *transformative education* models that teach cooperation, complex problem solving, human rights as well as science, technology, engineering and mathematics (STEM). In other words, we need to improve *emotional intelligence* (EI) as well as *traditional cognitive intelligence* (CI). This new approach to education must naturally promote sustainable economies, businesses, and energy utilization that can provide water and food for a world population that could reach more than nine billion people by the middle of this century.

Understanding the Global Strategic Environment

Many of the leading challenges to global security and prosperity in the 21st century come from a kaleidoscope of sources including nuclear proliferation⁴ (see figure below), financial volatility, climate change, projected shortages of water and arable land, unsupportable population growth, crossborder migration, pandemics, dwindling energy reserves, and loss of ocean stocks due to overfishing and pollution. All are already widely acknowledged by the scientific community to be systemic threats, but broader public awareness and commitment of resources to reverse these trends has not yet been satisfactorily mobilized. Neither have we developed a comprehensive paradigm of universal education that naturally encourages the world's population to deliver the needed changes to cope with these threats. The threat of armed conflict will only increase if we do not address these issues collectively with an appropriate attention to human rights and worldwide sustainable development.

3 http://www.huffingtonpost.com/steven-cohen/the-inevitability-of-sust_b_1908969.html 4 http://en.wikipedia.org/wiki/File:Nuclear_weapon_programs_worldwide_oct2006.png





World map with nuclear weapons development status represented by color. As of March 2007.

- Five 'nuclear weapons countries' from the NPT
- Other known nuclear powers
- Countries formerly possessing nuclear weapons
- Countries suspected of being in the process of developing nuclear weapons and/or programs
- Countries, which at one point had nuclear weapons and/or nuclear weapons research
- Countries that possess nuclear weapons, but have not widely adopted them

What has changed is not the nature of the problems we face, but their scale and intensity and potential to escalate into higher order threats. Because of complex interdependencies, singular local and global threats have the potential to intersect and combine into larger scale problems, creating cascading effects on a global scale. Contemporary paradigms of partnership and education are wholly inadequate to equip the next generation to cope with these intensifying challenges faced by every country in the world today.

Initiating a call to global partnership at the November 2010 Global Challenges Forum in Geneva⁵, Chinese Ambassador to the U.N. in Geneva, HE Yafei summarized this concern when he stated, 'We need a new global partnership that is more equal, that is more balanced, that has mutual and shared benefits. We survive or we sink together. So this new global partnership is extremely important.... We are interdependent for the security of others. So we need new thinking: new concepts, new mechanisms, and new means to achieve this concept.' In short, this call to global partnership was the initiation of a Global Strategic Narrative development process. In support, one of the largest challenges will be for the stewards of the current order to emphasize the commonalities that emerging nations have

⁵ http://www.globalchallengesforum.org



with the traditional Western liberal democracies and encourage stakeholders to leverage their differences to promote new modes of thinking, new models of education and cooperative research.

To encourage and demonstrate the need for an extensive global dialogue, we provide a brief discussion of several of the most important issues that are at the base of these emerging threats. Such risks include today's unsustainable development models, which combined with a shift of power from governments to large international financial organizations and corporations drive the global economy and are responsible for both its positive and negative impacts.

1. The Global Concentration of Power and Wealth Beyond Governance

A great challenge and opportunity concerning global sustainable development is the growing need to address the relative balance of power between the forces of global capital and a contending global civil society. The challenges are great. Professor G. William Domhoff provides a clear understanding of the relationships between individual wealth and power in the United States in his excellent web-based article, *Wealth, Income and Power*.⁶ Today, a relatively few corporations and wealthy individuals are able to wield more power than many of the world's nation states. Sarah Anderson and John Cavanagh: *Top 200: The Rise of Corporate Global Power*⁷ provided some data several years ago. With the recent emphasis on 'mega-mergers,' it is likely that the situation is moving even further in the direction of domination: ^{8,9,10}

- Of the 100 largest 'economies' in the world, 51 are corporations; only 49 are countries (based on a comparison of corporate sales and country GDPs).
- They reported that at that time the sales of the top five corporations (General Motors, Wal-Mart, Exxon Mobil, Ford Motor, and DaimlerChrysler) were bigger than the GDP's of 182 individual countries.

From a more recent perspective in September 2011, an analysis of over 43,000 transnational corporations (TNCs) has identified a relatively small group of companies, mainly banks, with disproportionate power over the global economy.¹¹ Of those companies,

• 1,318 'interlocking' companies represent approximately 60% of global revenues by

9 http://www.aljazeera.com/news/americas/2013/02/20132143178106622.html

⁶ http://www2.ucsc.edu/whorulesamerica/power/wealth.html

⁷ http://www.ips-dc.org/reports/top_200_the_rise_of_corporate_global_power

⁸ http://www.thelocal.ch/page/view/ec-attaches-conditions-to-swiss-mega-merger#.USJPL-ikB7w

¹⁰ http://dealbook.nytimes.com/2013/02/14/confidence-on-upswing-mergers-make-comeback/

¹¹ http://www.globalissues.org/article/59/corporate-power-facts-and-stats



collectively owning, through their shares the majority of the world's large blue chip and manufacturing firms-- the 'real' economy.

• An even tighter 147 (about .34 %) of these companies were described as 'super entities' that controlled 40% of the total wealth in the global network.

Never in world history has so much wealth—and its accompanying power to influence decision making and the electoral process—been in the hands of so few. It is clear that the *global nation state community* will have to come together to address the great power of multinational mega-corporations, huge financial institutions and 'super wealthy' individuals if it is to have any hope of creating a world economy based on *sustainable development*, *which meshes economic growth and respect and protection for the environment, accompanied by social equity.*¹² A global security strategy needs to be discussed and developed in a way that people everywhere can logically endorse and join in exploring shared opportunities. The goal should be to describe and present opportunities for citizens in every nation to help identify local solutions to global sustainment in terms of shared responsibility and *shared benefit*. The need for a Global Strategic Narrative has never been greater than it is today.

A clear example of unsustainable development and economic growth is provided by one of the largest global industries, carbon based energy production. This form of energy production continues to threaten the global environment through the increase of the 'greenhouse effect' and the acidification impact of increased levels of CO2 on the world's oceans.

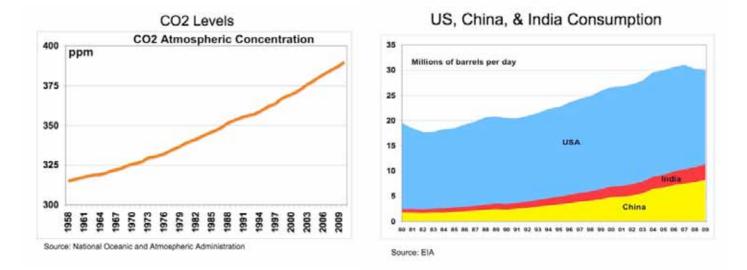
2. Climate Change as a Threat to Sustainable Development

The worldwide cumulative level of CO2 in the atmosphere continues to increase as the graph provided by National Oceanic and Atmospheric Administration clearly indicates. When one compares the consumption of oil by the U.S., India and China in the second graph, it is clear that there has been a small slowdown in U.S. consumption, while India and China continue to enlarge their capacities to consume oil and produce CO2 in the atmosphere, and

¹² Mr. Y also addresses this issue in *The National Strategic Narrative*. In April 2011, Captain Wayne Porter, U.S. Navy, and Colonel Mark Mykleby, U.S. Marine Corps, published an article, The National Strategic Narrative.' They used the pen name 'Mr. Y', an indirect reference to the 1947 article, 'The Sources of Soviet Conduct' by 'X'-- actually George F. Kennan, writing anonymously -- that outlined the tenets of post-World War II strategy, which grew into the doctrine of containment and guided US political and military efforts throughout the Cold War. 'Mr. Y' called for a shift of emphasis in US national security policy from 'containment' to 'sustainment' and a reallocation of funds from military programs into educational, economic and other social development, in order for America to maintain its influence in a now deeply inter-connected global system. Our article takes a different point of departure going beyond a national perspective to advocate instead a 'Global Strategic Narrative,' hence the appellation by the authors to the title 'Mr. Z'.



at a rate that is deemed alarming by the vast majority of atmospheric scientists. Through huge expenditures in marketing, conservative foundations and multinational carbon based energy companies have been able to convince much of the U.S. public and a major U.S. political party that the arguments being made by more than 98% of the world's atmospheric scientists are a hoax and just a natural event that humanity has no control over.



3. The threats to the world's oceans:

One immediate result of CO2 increases in the atmosphere is the rapidly occurring changes to the ocean's pH balance through absorption of CO2. For example, according to Dr. Marcia McNutt, Director of the U.S. Geological Survey and former Director of the Monterey Bay Aquarium Research Institute, diatoms, an algae, which is the basic plant food for small fish is rapidly being replaced by dinoflagellates, a class of toxic algae, which is endangering the ocean's fish population and human beings worldwide. According to McNutt in a 2008 newspaper quote, 'Suddenly in 2003, dinoflagellates took over; the last time these guys were dominant was 55 million years ago for a period of 225,000 years, a time of massive extinctions.'¹³ Very little has been done in the past decade to reverse this trend, nor to make the public aware of major biological changes to the world's oceans.

4. Agriculture and Soil Degradation

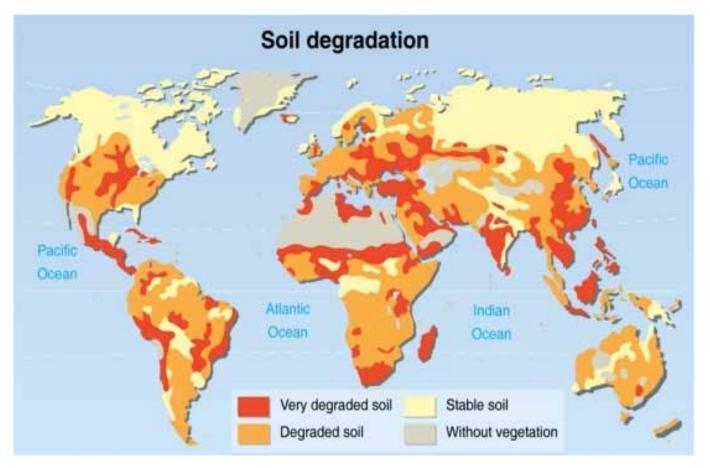
A fourth example concerns recent reports on global soil degradation that poses an alarming 21st Century challenge in the face of an anticipated population growth to nine billion people by 2050 or even sooner. Estimates of soil degradation indicate that through the excessive use of destructive agriculture techniques, which include inorganic NPK chemical fertilizers, erosion, water run-off and deep tilling, more than 30% of the world's topsoil has

¹³ http://www.sltrib.com/news/ci_8165160



already been severely seriously depleted of its carbon base and more than 60% has been significantly degraded (see map below). As the soil degradation map indicates, some of the world's greatest population centers are suffering the greatest levels of soil degradation.¹⁴ Reporting in Environmentalism 101, April Kelsey reports: ¹⁵

'The chemical fertilizers and pesticides commercial farmers rely on to produce high single-crop yields kill many of the essential microorganisms and insects that aerate and build the soil, while heavy farming machinery destroys soil structure through compaction. Chemicals also leach water from the soil, making it salty and acidic and leaving crops vulnerable to drought. Dry and damaged soil erodes much faster than healthy soil. Experts estimate that 66 percent of U.S. soil degradation and erosion has resulted directly from these kinds of agricultural practices. The cornfields of the U.S. Midwest are an area of particular local concern, where as much as 75 percent of the topsoil has been lost to erosion.'



Other challenges generated by unsustainable agriculture practices in the 21st Century, which are severe threats to human health and sustainability include:

- Chemical fertilizers poison the world's aquifers, rivers and lakes
- Chemical fertilizers are a major contributor to global warming because of nitrous oxide and other gas emissions
- Unprocessed animal waste from Concentrated Animal Feeding Operations (CAFO),

¹⁴ UNEP, International Soil Reference and Information Centre (ISRIC), World Atlas of Desertification, 1997. 15 Topsoil Erosion: The Ecological Disaster No One is Talking About: http://suite101.com/article/topsoil-erosionthe-ecological-disaster-no-one-is-talking-about-a376645



when used as fertilizer, can introduce dangerous bacteria in food supplies

Solutions to these problems are well within the capabilities of today's science and technology if one moves from the more than 100-year-old inorganic chemical fertilizer methods to more modern organic biotic solutions. Other challenges that need to be part of the proposed *global discussion* include the world's economy itself, plastic pollution of the oceans and landfills, genetic modification of food supplies, disparity of income, child labor, gender equity, world health and pandemics and the need for transforming education worldwide.

Globalization of Cooperation

Humanity's conceptions of security and our approach to national and global security strategies and expenditures must change fundamentally to address threats of this magnitude. Any new approach must be formulated as an empowerment paradigm, wherein partners at many levels are encouraged to contribute solutions to shared problems on their own terms. As Carol Dumaine observed, 'the globalization of national security risks demands the globalization of cooperation.'¹⁶ *This cooperation is best approached through international partnerships utilizing holistic, systems and effects based thinking, which can better support sustainable development*. New platforms to promote global research and educational partnerships are needed to cope with emerging global threats and risks.

We believe it is important that we invest now in our next generation: they need the tools, opportunities and space to discover the best productive use of their talents and energy to enable the realization of our dreams. The human factor, citizen participation, and the human capacity to adapt to change are the most important elements in the endeavor to bring about a transformation. This must in turn lead to a new paradigm of education, one that is based on true learning, creativity, life-long engagement, judicious use of modern technology tools and networks, community-building and citizen participation.

There is need to explore the tremendous opportunities for education in the knowledge era to help secure a better future for our children. What this implies is not only that our educational systems transmit the most up-to-date information but most importantly, it must also enhance emotional intelligence: to think critically and creatively and use critical and creative faculties; to generate new knowledge and its applications to meet the economic, social and environmental challenges that our economies and societies face, both globally and within our own cultural and historical contexts.

¹⁶ Carol Dumaine, 'On a Global Foresight Commons,' SEED Magazine, November 23, 2010. Available online at: http://seedmagazine.com/content/article/on_a_global_foresight_commons/



June Gorman, UN Global Compact-PRME and Education Chair, United Nations Association writes:

'To teach for a sustainable future for humanity and its shared planet, one must think in whole concept understanding that connects all the systems and all humanity, in the most natural ways. That would mean the only truly 'sustainable education' is one that is not only international but actually creates an engaged, problem solving learner able to resolve complex, interdependent global issues on which human survival and quality of life revolves.'¹⁷

A New Paradigm Needed

As we highlight major trends and growing insecurity in the current global environment we recognize that traditional national security mechanisms to protect our societies are losing effectiveness. For over six decades, the dominant principle guiding American national security policy has been 'containment,' the intellectual framework set out by George F. Kennan's famous article, *The Sources of Soviet* Conduct, penned under the authorship of 'X.'¹⁸

The utility of the containment narrative to the United States of America should have expired at the end of the Cold War, with the disappearance of the enemy it was designed to contain. Instead, at that moment when this defensive posture should have been abandoned, Saddam Hussein's invasion of tiny Kuwait, requiring conventional military intervention by a US force built to counter the Soviet Union, provided justification for the continuity of a containment strategy and force structure. With a string of other interventions that followed, it is clear that the structures for containment remain in place, including a staggering US defense budget larger than the countries with the next 13 defense budgets combined, amounting for 43 percent of all defense spending worldwide.

It could be argued that a more systemic approach than containment was needed to prevent the economic problems and proliferation of nuclear weapons over the last few decades. In terms of an envisioned complex, systems approach, grounded in global partnerships, the Cold War containment strategy was clearly unsustainable and some of today's crises, including nuclear proliferation and the current U.S. annual deficit, are a result of instituting narrow deterrent and economic policies throughout the Cold War and for decades following its end. From 2007 to 2010, U.S. leaders of the decades old containment policy seemed to be reversing their positions in a series of articles appearing in the Wall Street Journal. In their own words from the Wall Street Journal, the authors George P. Shultz, William J. Perry,

¹⁷ June Gorman, 'Education of the Future Citizens for a Shared Sustainable World,' unpublished manuscript presented at Oxford University, 2011.

¹⁸ The US vacillated during the Cold War between following containment, pursuing detente aimed as relaxing tensions, and taking efforts to actively rollback communism. Nonetheless, containment remained an anchoring position in the minds of policymakers.



Henry A. Kissinger and Sam Nunn state:

'The four of us have come together, now joined by many others, to support a global effort to reduce reliance on nuclear weapons, to prevent their spread into potentially dangerous hands, and ultimately to end them as a threat to the world. We do so in recognition of a clear and threatening development.'¹⁹

Many contemporary observers can now identify another historically new dimension to the national security problem: the gravest long-term threats are now to be found in 'nonmilitary' social and economic trends that foster global instability. Trying to solve political or other nonmilitary problems with military solutions has fostered long-term negative externalities, and arguably a huge depletion of U.S. 'soft-power' over the last decade. Thus far, no comparable approach to national security or grand strategy has emerged as a replacement for containment that encourages the 'resilience and adaptiveness' that is necessary for all nations to adopt in response to emerging global threats.²⁰

A recent series of events has given credence to the call for *transforming global education* and a more global and holistic assessment of the threats facing all of humanity. Some of these events reflect new, complex global challenges whose solutions will require international cooperation by all the world's nation states. Evidence of these emerging challenges include the Japanese nuclear crisis at Fukushima, the impact of carbon based energy sources on climate change, growing worldwide food and water shortages, the historic downgrade of the American government's credit rating, the European financial system on the brink of collapse, severe damage to the world's oceans, global job migration and criminal and terrorist acts on land, at sea and in cyberspace. These items illustrate key security issues stemming from globalization that eludes any narrow focus on 'national' approaches. The convergence of these events suggests that 'sustainability' is a matter inclusive of, but larger than, profitability and economic security; these events pose the question of whether we are entering a condition of increasingly unmanageable economic, political and social pressures.

The American military authors of the April 2011 report, *A National Strategic Narrative*, have dramatized the need for a new approach and advocated that the outmoded U.S. national doctrine of containment should be replaced by a comprehensive national doctrine of 'sustainment.'²¹ Their proposed approach, issued under the pen-name 'Mr. Y' formulated a new strategic 'narrative' for U.S. national security in terms that can be understood and debated by the American public, advocating that United States should focus on 'smart growth' at home as a precondition to the exercise of 'smart power' abroad. In

21 See Footnote 12.

¹⁹ http://online.wsj.com/article/SB10001424052748704152804574628344282735008.html

²⁰ Joshua Cooper Ramos, The Age of the Unthinkable. (New York: Brown, Little and Company, 2009).



short, they advocate alignment of domestic and foreign policy toward common goals, which have often been characterized in the past by divergence. As the foundation for the proposed new American national strategy, *A National Strategic Narrative* suggests that a broader set of national strengths should be recognized, not only, perhaps not even primarily, U.S. military power.

However, the United States' principal strategic problem is not simply the decline in its national influence and competiveness, the challenge the 'Mr. Y' narrative seeks to address, through its call to enhance America's relative economic posture and competitiveness in a multi-polar world. This alternative approach of heightening U.S. national competitiveness -- within a flawed global system, is still based on competition (the same kind of competition, in many cases, that throughout human history has led to conflict) – and does not fully address either U.S. or global security in the long term. We believe that unless citizens everywhere start thinking about 'smart growth' and 'smart power,' and preventive strategies and solutions, sooner or later they may have to be thinking about an overall global system collapse.

On the more optimistic side, we have witnessed several positive developments including the recent occurrence of the 'Arab Awakening,' the initiation of the Arab people's quest for democratization and freedom from tyranny, the development of new agriculturalbiotic techniques that promise recovery of severely damaged farmland world wide and low cost organic farming for the entire world, improvements in several alternate energy sources such as silicon photovoltaic cells and lower cost, higher efficiency reverse osmosis capabilities that show promise for lower cost sustainable energy and wide spread, low cost desalination of seawater for even the poorest of nations.

It is for these reasons that we need to go beyond national narratives and instead advance a *Global Strategic Narrative* -- one that will promote local development of educational curricula for communities and businesses that includes life-long learning in fostering the adaptive and resilient responses to emerging global problems that confront us all. We humbly submit that a new education paradigm centered on effects-based thinking is urgently required.



Strategic Research and Action to Develop a Global Strategic Narrative

The need for a holistic, emotionally intelligent and effects-based approach to education is growing by the day. *Transformative Education* can help to mobilize a wide array of actors to address challenges in a more effective and comprehensive manner. Increasingly, educationists everywhere are beginning to assess whether it might be our own current Western education paradigm that is being emulated all over the world that has resulted in the global economic crisis, climate change, unsustainable disparity and continuing destruction of our shared environment at an unprecedented rate. We are in dire need for new models of *education for sustainability*.

In response, the *Global Challenges Forum (GCF)* initiative launched in 2010, established the Transformative Education Forum (TEF), which has brought together nearly 200 of the world's practicing educators and educational philosophers from more than twenty-five countries to help define *transformative education* for the 21st century. Concluding the November 2011 meeting, they argued:

'We need new curricula that emphasize not only traditional skills, but curricula that will help develop creative, complex problem solvers and global critical thinkers... These new models of education, besides having a focus on science, mathematics, engineering and technology must also deliver an education that is international, teaches partnership skills, embraces diversity and focuses on global sustainability if we are to reverse the ecological and human damage currently being imposed on the earth and its inhabitants. And, it must deliver this education, without prejudice, to all people; people of every race, gender, economic status and religion'

The 'twelve principles' that emerged from the Forum can serve as an initial framework to start the process of developing a *Global Strategic Narrative* to address emerging global security threats and risks.²² We believe that acceptance of these principles will naturally foster long-term global sustainable development. The first five Principles listed are core Principles of Transformative Education.

Principle 1: Human Rights

Transformative Education shall promote and support the Universal Declaration of Human Rights, to reinforce the full development of the human personality and the strengthening of respect for human rights and fundamental freedoms. A Transformative Education acknowledges the right of all people, from all nations, all races, all ages, and economic standing–in particular for girls and women in all nations, to access a Transformative Education equal to that of men.

²² http://tef.globalchallengesforum.org/principles/



Principle 2: Sustainability

Transformative Education shall promote and support the practice of sustainable development, meshing economic growth, respect and protection for the environment with social equity and well-being. Humans are entitled to a healthy and productive life in harmony with nature.

Principle 3: The Importance of Value Systems: Morality, Ethics and Spirit

Transformative Education shall embrace the values, ethics, morality and spirit that have stood the test of time worldwide because these values recognize and honor the interconnectedness of all life. Transformative Education will lead to a more conscientious global citizen with an emphasis on empathy and compassion and with the understanding that science, technology, engineering and mathematics,²³ without the underlying values of planet and human sustainability, is devoid of meaning.

Principle 4: Diversity

Transformative Education shall promote the values of diversity, welcome cultural differences and recognize heterogeneity as a gift of strength and adaptability and the critical concept in developing any viable solutions for sustainability, in a diverse and complex world.

Principle 5: Economic and Social Justice/Equity

Transformative Education shall inform, promote and support the special situations and needs of developing countries, particularly the least developed and those most environmentally vulnerable, as a special priority. Transformative education should also address the interests and needs of all countries, including developed countries where poverty and racial and economic inequities still exist, and thereby contribute to the prevention and reduction of economic global inequality.

The subsequent seven Principles are more specific elements that are essential for implementing transformative education. These principles focus on the need for: 6) 'Peace Education and Conflict Resolution' to resolve disputes without trial or violence; 7) 'Holistic Education' aiming at education of the whole person - mind, body and animating spirit and creative/artistic intelligences important to problem-solving in a complex world; 8) 'Community-Based Learning and Indigenous Wisdom' promoting service learning, including

²³ This focus on science, technology, engineering and mathematics is heavily promoted in the current dominant policy of American education and referred to by the acronym 'STEM.' The GCF TEF in the U.S. would like to instead promote necessary exploration of the values, ethics, morality and sustainability that would underline any such STEM focus, include more of the Principles above and thus 'transform' that focus to 'STEM+.'



an ability to identify community needs and the skills to address them; 9) 'Simulation and Experiential Learning' such as Model United Nations, Model Governments and Model Corporations; 10) 'New Brain Neuroscience'²⁴ and the inclusion, application and integration of recent educational neuroscience findings, including integrative neurophysiology and pedagogical learning; 11) 'Use of Technology' for greater connection not alienation; and 12) 'Sanctity of Human Learning and Life,' teaching the wonder and potential of every human child, the interrelationship of life and that we can no longer afford to live with privileged disregard of this planet, all its diverse and valuable species and each other.

These 'Principles for Transformative Education' developed by an international group of educators establishes the basis for the development of a new global curriculum that can lead to environmental and economic sustainability--to the adherence to the fundamental rights of all of humanity--and to the development of a natural global security strategy. This strategy is fundamentally based in educating everyone with the skills of foreseeing, preventing and creatively reacting to and solving these emergent system-wide crises, and therefore should be central to the strategic research and action goals and aims of any *Global Strategic Narrative*. The world's largest financial institutions and corporations are not antithetical to this proposition, but must be managed with an eye toward global sustainability, rather than simply private profit for the few at the expense of the many. Further, we endorse the United Nation's Global Compact²⁵ and its PRME education initiative for graduate schools of business as good models in the spirit of the Transformative Education principles.²⁶ More efforts are needed to foster a new generation of leaders in the private sector who are better equipped to lead multinational corporations in becoming full partners in establishing true global sustainability.

In developing a *Global Strategic Narrative* we recommend that concerned citizens and leaders everywhere consider the twelve principles of Transformative Education as a possible starting point for strategic research and action. The need for such a narrative stems from our premise that global public policy lacks an orienting principle and unifying vision around which a varied array of actors may coordinate their knowledge and resources. The international community needs a shared narrative, a *Global Strategic Narrative*, one that corresponds and responds to the complex, systemic, interconnected problems of globalization. It should not only engage national policymakers, but NGOs, corporations, philanthropies, leaders of civil society and academia, grassroots movements, as well as individuals in a strategic research agenda. We believe that citizens of all nations need a discussion that will enable them to join with others in developing and implementing a collaborative global security strategy in ways that enhance a whole-of-humanity approach in addressing emerging challenges, promoting collective resilience and adaptive capacity for all.

24 http://www.nytimes.com/2013/02/18/science/project-seeks-to-build-map-of-human-brain. html?pagewanted=2&_r=0&nl=todaysheadlines&emc=edit_th_20130218 25 http://www.unglobalcompact.org/ 26 http://www.unprme.org/



A major consideration that informs any Transformative Education agenda in support of a global partnership approach to sustainability is the evolving notions of citizenship and the educational requirements of a global citizenship. Among the many conceptions of citizenship is the widely held notion of an implicit social contract that a government will provide protection to its citizens while enacting policies that generally improve their longterm well-being. This contract generally includes access to public health, education and police and military protection. In return, certain rights and responsibilities are expected of citizens, including the timely payment of taxes and respect for the rule of law. Education is the medium through which individuals are prepared to participate in their society as citizens. In particular, *civic education* tends to emphasize shared history and values while imparting practical, problem-solving skills that nurture competence in addressing local concerns.

Education for citizenship will need to change, commensurate with the rising importance of global citizenship as an aspect of personal identity. One of the most important educational needs in support of global sustainability is the transformation of formal educational systems. Education for sustainable development is necessarily an interdisciplinary approach to learning. We need to enter a great transition in education where the fundamentals - learning to read, count and write - also include learning the emotional intelligence skills needed to change the course of society, both locally and globally. An education that reconnects learning goals to sustainable development must be one that creates the problem-solver who understands the critical environmental crises in their international contexts and the social-political and economic crises that define many of those contexts.²⁷

A spirit of global partnership will be needed to develop a Global Strategic Narrative to address the security challenges of the 21st century. Building toward a consensus framework will require the development of collaborative networks to support both strategic research and transformative education. Efforts should focus on helping to build innovative networks and creative design into the operations of organizations seeking to transition to the Knowledge Age. Analytical support and creative services are needed to extract the full value of strategic partnerships. We need to look for leading-edge customized solutions. First we need to encourage a re-thinking of local education initiatives everywhere in a way that leverages the positive aspects of globalization, and the notion of both local and global citizenship. Second, while a substantial domestic investment is needed, every nation should encourage multiple levels of society to participate in global educational partnerships, establishing the institutional framework to allow a new generation – the diplomats, intellectuals, engineers, doctors, thinkers, and decision-makers of tomorrow – to maintain open channels of global interaction. Third, what must be addressed – and what sits at the heart of global partnership – are the solutions and opportunities for research and educational collaboration that these challenges present. It is with these thoughts in mind that the authors helped establish the annual Transformative Education Forum (TEF)²⁸ as the heart and soul of the Global Challenges Forum Foundation.

²⁷ From the Transformative Education Forum website, available online at : http://tef.globalchallengesforum.org/ 28 http://tef.globalchallengesforum.org



The Global Challenges Forum

In 1987, the United Nations released the Brundtland Report, which included what is now one of the most widely recognized definitions: 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.²⁹ This paper's call for sustainable development through strategic research and transformative education will demand new venues to facilitate the effective flow of ideas and information needed to help cultivate what Thomas Homer-Dixon has called the 'prospective mind.'³⁰ Strategic research and action are needed to engage a new world of uncertainty and risk, one in which constant change and surprise is inevitable. In support, the Global Challenges Forum Foundation (GCFF), a non-governmental organization registered in Geneva, Switzerland hopes to serve as a 'forum of forums' strengthening existing forums and encouraging them to collaborate in order to address pressing global challenges. To implement this vision, the 'Association for Strategic Research and Action' (ASRA) has been established in association with the GCFF to serve as a global membership organization. We look to ASRA members to develop a globally sharable vision of the future, one worth working hard to attain, one that takes into consideration the new balances of power between public and private, present and future. It might include outlining goals and structure for multi-stakeholder partnerships to address: 1) Transformative Education, 2) Sustainable Development, and 3) Holistic Socio-Economic Growth. ASRA members will bring together "storytellers" of thinkers and practitioners from around the world whose individual voices may merge into a collective narrative feeding the development of a Global Strategic *Narrative*. In support, we seek the most inclusive approaches possible. This is in fulfillment of what U.S Ambassador to the UN in Geneva, Betty King, said at the Global Challenges Forum launch echoing the previously cited remarks of statements of Chinese Ambassador HE Yafei She declared:

'In the 21st century we also recognize that governments alone cannot solve all of these problems. We must work broadly, with the academic community, with civil society, with the private sector, and with the media, to come up with comprehensive and complex approaches to our most difficult challenges.'³¹

We believe strongly that such an organization, one centered on providing a neutral forum for discussion can be a catalyst to initiate a global dialogue leading to a shared vision of the future in the form of a *Global Strategic Narrative*. We aim at promoting leadership roles within global civil society, serving as a facilitator in the search for solutions to shared problems of global governance. We will network together universities, think-tanks, non-governmental and international organizations in projects that focus on vital issues such as renewable energy, global health, sustainable agriculture, transformative education, and

²⁹ http://www.un-documents.net/ocf-02.htm

³⁰ Thomas Homer Dixon, The Upside of Down. (Toronto: Vantage Canada, 2007) pp. 29-30.

³¹ Amb. King's full text speech may be downloaded at the Global Challenges Forum website online at: http://globalchallengesforum.org



human security. Open source, social networking, and other collaborative approaches can be used to produce projects that touch the livelihood of both local and global communities. The Forum will help bring together emerging institutions around the world, forming functional networks that can focus on education for all, leading to environmental protection, economic development, and social justice. These are among the key building blocks for global partnership through Transformative Education leading to global sustainability.

The world is both more interconnected and empowered more than ever before. This gives more potential to bring groups and individuals together to share best-practices and exchange information. It also provides the opportunity to craft human centered 'early warning systems' for shared problems based on interconnected networks of individuals from various backgrounds who share an interest in a particular threat or global risk. Our goal is to support education and research activities that help to evolve national and global public policy for a world beyond containment and sustainment. We should continue to move forward in the direction of an inclusive and pluralistic world where peace, democracy, and prosperity prevail, where global partnership is a method, and global security for all, is an end.

