

Search for a Universal Paradigm: Making Justice Live for All

William Christensen

Institute of Integrated Rural Development (IIRD) Mohammadpur, Dhaka-1207

Abstract

This paper deals with the natural sciences complexity theory, which forms their basis, leads the readers to understand the great interconnectivity in all living systems and the network pattern which is common to all life-forms. Dynamic role of metabolism, which ceaselessly maintains an organism, provides energy flow and reproduces. The adaptability and versatility of life are characteristic of the metabolic system. Emergence or self-organization is also characteristic of all life. Mind and consciousness are discussed as the link between the natural sciences and social sciences. The centrality of culture, which provides identity and a sense of belonging to humankind, and of technology, which is intertwined with human life from its origin in Homo habilis is discussed.. The collapse of the Soviet Union and globalization of the criminal economy, as examples of the failure of the present paradigm to respond to the needs of humankind. Impact of economic-corporate globalization on world poverty shows that there is increasing poverty and social differentiation throughout the world since the early 1990s. The need for a new and universal paradigm for humanity to move the world from the path of growing political, social and economic cleavages and polarization is also discussed. There are then three proposals for re-structuring the global system, presented in some detail. The present economic system has undercut this achievement leading to a host of problems. He proposes that there must be the reconstruction of a mixed economy either through nation states reclaiming power to control economic forces or through establishment of new international institutions. He gives many practical suggestions of what specifically needs to be done. The International Forum on Globalization (IFG) stresses that resolving the present ills of the world must begin by promoting economic democracy. The third source for new proposals is George Monbiot in his Manifesto for a New World Order

The paper was presented at the International Conference on a Universal Paradigm of Socio-Scientific Reasoning organized by Asian University of Bangladesh.

1. Complexity Theory and Networking in the Natural Sciences

"Today, chaos theory, catastrophe theory, complexity theory, and the theory of dissipative structures all reflect the new scientific emphasis on contingency, indeterminacy, embedded-ness, and diversity in the natural world. Where modern science looked for ultimate truths and fundamental particles, the new science looks for unexpected possibilities and emerging patterns. Nature is seen more as series of continuously creative acts than an unfolding of reality based on unalterable laws. Nature is full of surprises at every juncture and creates its own reality as it goes."

-Jeremy Rifkin (1993)

Until the 1970s, scientists avoided nonlinear equations because they were almost impossible to solve. However, with the development of powerful, high-speed computers there has been the formulation of a new mathematical theory and consequently scientific theory, which is variously named "complexity theory" or "nonlinear dynamics".

Biology has been shaped by the study of individual organisms. Even today the majority effort in genetics is based upon the concept that the biological form is determined by a blueprint passed on to the next generation through DNA, when a cell divides and its DNA replicates. This false premise is the cause for a huge wastage of scientific effort, but is pushed by commercial interests, such as the pharmaceutical industry.

Rather than genetic determinism, complexity theory reveals a great interconnectivity in all living systems. Even the most minimal cells (mytoplasm), though they have internal simplicity, can only survive in a fairly complex chemical environment; they do not have ecological simplicity. This is why the traditional biological study of individual organisms is now irrelevant. All organisms participate in ecological systems. The organisms themselves may have internal simplicity or complexity. They also may have ecological simplicity or complexity. There is simplicity when the biochemistry of the organism's internal environment is simple or when the organism makes few chemical demands on its external environment.

The first defining characteristic of cellular life is the cell membrane. The second characteristic is the nature of metabolism, which takes place within the cell boundary. Microbiologist Lynn Margulis says, "Metabolism, the incessant chemistry of self-maintenance, is an essential feature of life -- through ceaseless metabolism, through chemical and energy flow, life continuously produces, repairs, and perpetuates itself. Only cells, and organisms composed of cells metabolize" (Capra, 2002, 9).

Processes of metabolism form a chemical network, which is another fundamental characteristic of life. "As ecosystems are understood in terms of food webs (networks of organisms), so organisms are viewed as networks of cells, organs and organ systems, and cells as networks of molecules" (Capra, 2002, 9). The network is pattern which is common to all life.

In other words, a cell is a membrane-bounded, self-generating, and organizationally closed metabolic network. It is materially and energetically open, using a constant flow of matter and energy to produce, repair and perpetuate itself.

A. Emergence

"--- Nature's creative advanced---"

-A. N. Whitehead

When a cell reproduces it passes on its genes, membranes, enzymes, organelles--the whole cellular network. Simple DNA is never passed on, because genes can only function when they are embedded in an epigenetic network. Life has proceeded through this basic pattern of self generating networks in an uninterrupted process over three billion years.

The human body is made up of hundreds of different cell types (bone, blood, muscle, etc). About 75 trillion cells are active in our bodies, with billions of cells dying every few days and being replaced. In spite of this massive change we do not experience that we are so different as persons. We believe we are the same continuous beings.

We all begin life as single celled embryos; seconds after conception, the embryo divides into two sections, a "head" and a "tail". Gradually, the embryo reaches a more complicated stage, when groups of cells begin to form the brain, eyes, legs and so forth. Each cell must decide which of these it will become, as every cell has the full genome in its nucleus.

Somehow the cells know what to become. According to Gerald Edelman, the process by which they do this is called topobiology, "topo" coming from the Greek word topos, meaning place. Cells have an ability to identify what neighboring cells are becoming and they join the process. This process is also called "gene expression". The individual cells, without knowing the overall organism result, are able to create the organism by acting locally with no guide other than their particular neighbors. In *Genome: The Autobiography of a Species*, Matt Ridley says, "The great beauty of embryo development, the bit that human beings find so hard to grasp, is that it is a totally decentralized process. Since every cell in the body carries a complete copy of the genome, no cell need

wait for instructions from authority; every cell can act on its own information and the signals it received from its neighbors" (Johnson, 86).

Emergence is one of the most important concepts in the new understanding of life. Capra recognizes it as the dynamic origin of development, learning and evolution in other words, creativity. Since emergence is integral to the dynamics of open systems, we know that such systems develop and evolve. Life constantly creates new forms, reaching out into novelty.

B. Evolution

"We know what we are, but know not what we may become."

-William Shakespeare.

Cells have multiple paths for producing the structures they need and for promoting their vital metabolic processes. This redundancy gives the evolutionary process stability and reliability, even during major crises. Biodiversity in ecosystems is similarly redundant, as are cultural and civilization forms. They have the ability to persist and rebound in spite of heavy damage to biological systems and efforts to crush cultures and civilizations. In the new understanding of life, based on complexity theory, there are three avenues of evolution. In the old understanding of life's development, mutation was understood to be the only genetic contributor to evolution. Mutation is understood as a random process, caused by an error in the self-replication of DNA.

It is now known that bacteria trade genes; technically referred to as DNA recombination. Lynn Margulis says, "Horizontal genetic transfer among bacteria is as if you jumped into a pool with brown eyes and came out with blue eyes" (Capra, 2002, 9). The process is continual, with up to 15% genetic material changed daily by some bacteria. This genetic flexibility greatly helps bacteria to adapt to environmental changes. Their global communication network should also be a model for human society, as they can rapidly build drug resistance on a global scale.

The third evolutionary path is known as symbiosis. This refers to the tendency of different organisms to live in close associations, sometimes inside one another like bacteria in human intestines. The creation of plant and animal cells are believed to have come from small bacteria merging and living inside larger cells. The plant and animal cells then evolved into living organisms through sexual reproduction. Capra explains that these organisms continued absorbing bacteria, incorporating parts of their genomes to synthesize proteins for new structures and new biological functions. This does not greatly differ from the corporate mergers in commercial life today.

C. Mind and Consciousness

"-- I say that testimony of many has little more value than that of few, since the number of people who reason well in complicated matters is much smaller than that of those who reason badly. If reasoning were like hauling I should agree that several reasoners would be worth more than one, just as several horses can haul more sacks of grain than one can. But reasoning is like racing and not like hauling, and a single Barbary steed can outrun a hundred dray horses."

-Galileo Galilei

In the movement towards development of life-forms, there was dramatic increase in molecular complexity when nitrogen entered the system. Nitrogen proves essential for both catalysis and information storage in cellular life.

Catalysts increase the rates of chemical reactions and also make possible new reactions, but they are not changed in the process. They are central to the chemistry of life. The catalytic reactions would have helped foster many accidental events, pushing the protocells towards increasing complexity, further from equilibrium and closer to life.

In *Emergence*, Steven Johnson suggests that there is a close relationship between development of the brain and demands made on mental skills by social complexity. In a brief period (in evolutionary terms) of two million years, the brain mass of *Homo habilis* at 400 cc grew to the 1350 cc of *Homo sapiens*. *Homo habilis* is known to have traveled in groups of 2 to 150 or so. After *Homo habilis* learned to relate to one of her fellows or analyze the mind of a predator, incremental increases in brain size allowed for the analysis of a dozen and then 150 minds. The brain didn't need to invent anything new "once it figured out how to read a single mind is, just needed to devote more processing power" (Johnson 2003). More neurons gave more power. Anthropologists have not deciphered why *Homo habilis* reached the ceiling of 150 minds but this continues to be the approximate limit of human ability to read the minds of its fellows.

Johnson then suggests that the ability to analyze or read the mind of others, led to self-awareness. In any case, both the skill of relating to others and self-awareness are excellent examples of emergence.

According to a BBC on-line article, published on September 10, 2005 in The Daily Star, a Bangladesh English newspaper, titled "Human brain still evolving". A team of Chicago scientists reported that each gene variant emerged close to the same time that major changes in cultural behavior occurred. This has led both the investigators and scientists to wonder whether or not the genetic changes were responsible for the cultural ones.

The microcephalin variant appeared about 50,000 years ago along with such

cultural traits as art and music, religious practices and sophisticated tool-making techniques. It is now present in about 70% of living humans. The ASPM variant coincides with the much more recent spread of agriculture, settled cities and the first record of written language.

D. Language

"He who searches the branch and forgets the root, searches in vain."

M. K. Gandhi

When Roger Fouts began to work with autistic children, doctors explained they had "language problems". From his previous work with chimpanzees, Fouts understood this problem to mean specifically, spoken language. With Fouts's understanding, the children's behavior changed and they overcame their isolation within a few months:

"Even more extraordinary, and at first totally unexpected, was the fact that the autistic children began to speak after several weeks of signing. The signing apparently triggered the capacity for speech. The skill of forming precise signs could be transferred to the skill of forming sounds because both are controlled by the same brain structures. 'In a matter of weeks', Fouts concluded, the children may very well have retraced the evolutionary path of our own ancestors, a six-million-year journey that led from apelike gesture to modern human speech"(Capra, 2002, 60)

The relationship of physical matter and mind, the structure of the brain and the ability to analyze, think, and express through language, are intertwined. Complexity theory helps us understand that the human mind is not separate from the body but comes from it and is shaped by it. Fouts would surely maintain that there should be a radical reassessment of the relationship between humans and other animals. Johnson would, no doubt, extend this to social insects such as the ants.

E. Neurophenomenology

A Native American grandfather was talking to his grandson about how he felt. He said, "I feel as if I have two wolves fighting in my heart. One wolf is the vengeful, angry, violent one. The other wolf is the loving, compassionate one." The grandson asked him "which wolf will win the fight in your heart"? The grandfather answered, "The one I feed."

In the early 20th century, Edmund Husserl founded an important branch of philosophy called phenomenology, which Martin Heidegger and many other European philosophers helped develop. Its central concern is the disciplined examination of experience. Husserl and his followers intended that science of experience would eventually be established in partnership with the natural sciences.

Neurophenomenology is an effort to create such a partnership. The study of consciousness combines the 'disciplined examination of conscious experience with the analysis of neural patterns and processes. Effort is made to explore how various types of experience emerged from complex neural activities. The premise is that brain physiology and conscious experience be considered independent areas for research with equal status. Maturana and Varela, two main proponents of neurophenomenology, say, "The world everyone sees is not the world but a world, which we bring forth with others" (Capra, 2002, 54). This particular human world includes both abstract thought and self-awareness. Our concepts and ideas become closely interlinked with our emotions and bodily movements.

II. Interconnectivity of Natural and Social Science

"Education is the ability to perceive the hidden connections between phenomena."

-Vaclav Havel

When we extend the understanding of the nature of life to the human social dimension, we find that it is mind and consciousness which create the link. Conceptual thought, values, meaning and purpose, as well as their expression through language, connect nature and society most strongly.

The natural sciences now appreciate that the robustness of life comes from its redundancy and diversity. Even in the evolutionary tri-fold paths of mutation, gene trading and symbiosis, it is the alternatives and diversity which make the process more dynamic. Except for large commercial corporations focused only on profit and the bio-technologists whom they employ, humans now understand that monocultures are not suited to living systems where bio-diversity must be maintained. Monocultures and excess use of chemicals create ecological imbalance, resulting in enormous increase in pests and crop disease. Toxic chemicals then seep through the soil contaminate the water table and enter the human food chain. There are now more than 500 new chemicals in the body of U.S. residents than there were in 1900.

The dynamism of the metabolic system in all living organisms is another key element indicating a close connection to the human and social dimension. The great energy produced covers maintenance of cell structures, repair and reproduction. There is constant change, including death and re-creation of life. Adaptation and flexibility in nature are similarly crucial for society. Rigidity is opposed to life in the same way that monoculture is. As Manuel Castells shows, in his analysis of the sudden and unexpected collapse of the Soviet Union, rigidity of the economic system led to failure to conform to the information technology (IT) revolution.

Another key element in the new understanding from natural sciences, which connects to the social dimension, is emergence of self-organization. Life is a decentralized reality-- a grassroots, bottom-up, rather than a top-down, system.

Johnson shows how there are similar emergent patterns in the organization of ant colonies, cities and software.

Likewise, Jeremy Rifkin describes the importance of access to ordinary people in terms of their freedom and creative potential, as well as, the danger of giant telecommunications corporations gaining control over the Internet and the spectrum for commercial benefit, with the power and ability to manipulate humankind.

De Geus and colleagues studied large corporations that have existed for over a hundred years and successfully survived changes in the world while maintaining their original corporate identities. They analyzed 27 such corporations and found that they had certain characteristics of all life forms. Firstly, there was strong sense of community and identity around common values; all members felt supported for achieving their own goals. Secondly, there was openness to the outside world, tolerance for new individuals and ideas to come into the company, as well as an ability to learn and adapt to changing circumstances.

Social scientists, as well as biologists and ecologists, have shifted their thinking from hierarchies to networks, from individual effort to the impact of partnership. Association, cooperation and maintenance of symbiotic relationships all contribute to networking.

This networking is facilitating individuals and organizations to come together through Internet connectivity in order to pursue common interests more effectively.

Processes of metabolism form a chemical network. Organisms are viewed as networks of cells, organs and organ systems. Cells are networks of molecules. Ecosystems are networks of organisms. Non-governmental organizations (NGOs) and civil society networked in order to combat an undemocratic and unjust World Trade Organization (WTO). The criminal economy is becoming an international, extremely profitable perverse network. The European Union (EU) is a network state. While cities have many top-down structures, bottom-up forces create networks called neighborhoods. Brains are networks of neurons. The Internet networks tens of millions of accessed humans globally.

Another example of the linkage between the natural and social sciences is the central place in both of pattern recognition. The human brain is greatly limited in logical thinking due to the slow speed of human neuron activity. Neurons are capable of only 200 calculations per second, whereas a modern PC can do millions of calculations per second. However, the brain with 100 billion neurons all working at the same time is far more skilled at pattern recognition, which comprises the bulk of its neural circuitry. Digital computers are confounded yet by pattern recognition tasks.

The futurist Ray Kurzweil says: "We don't have time to think too many new thoughts when we are pressed to make a decision. The human brain relies on pre-computing its analyses and storing them for future reference. We then use our pattern-recognition capability to recognize a situation as compatible to one we have thought about and then draw upon our previously considered conclusions" (Johnson, 127) .

Actually, networks are patterns common to all life.

"What a strange machine man is. You fill him with bread, wine, fish, and radishes, and out come sighs, laughter and dreams."

Nikos Kazantzakis

The development of the term "culture" has been explained in detail in the definition section of this paper. However, it may briefly be said to refer to a distinctive way of life of a people. Culture gives a sense of belonging to a group of people, a sense of identity among the members of a particular social network. It is usually so deeply embedded in people's lives and so pervasive that there is little everyday awareness of its impact on our life. Likewise, it sets boundaries between those of the particular culture and those outside it.

Nations are built around culture identification, for example the Chinese or American cultures. In major religions we can similarly refer to the Islamic, Hindu, and Buddhist religious cultures. Ethnic groups include indigenous people of various countries, such as the Slavic peoples of Europe and the Kurds of Iraq and Turkey. Other terms show the further breadth of this concept, as when we speak of traditional modern or post modern cultures.

Rifkin explains how the capitalist system is creating a serious threat to the cultural sphere in his 2000 book, *The Age of Access*, sub-titled, *The New Culture of Hyper capitalism*, where all of Life Is a Paid-for Experience. There is a shift from industrial to cultural production as the more profitable commercial venture. Capitalism demonstrates a progressive intent to make all relations commercial ones-from manufacturing goods to providing basic services to co modifying human relationships and now to selling access to cultural experiences. The threat to civilization, according to Rifkin, is most serious because the monetary relationship is extremely weak compared to traditional relationships based upon such things as kinship, ethnicity, geography and shared spiritual vision. In the latter, people are bound together by strong reciprocal relationships and a sense of a common destiny. Their relationships and communities are regarded as ends, not simply means.

Through the creation of the Internet, culture and technology have become intimately interconnected. In the late 1960s, the U. S. Pentagon created the Internet in order to save money on the costs of providing expensive new super

computers to academic and defense-contracting researchers. The Internet is not a thing, an entity, nor an organization; no one owns it and no one runs it. It is simply everyone's computers connected. In 1998, the Internet economy generated more than \$301 billion in revenue, creating more than 1.2 million jobs and connecting 200 million people globally. Now in 2005, it may connect more than 1 billion human beings. A few years ago, a study at the University of Texas indicated that the Internet economy was growing by over 170% per year, doubling in size every nine months. Perhaps \$1.5 trillion annual business sales are now transacted annually online, which is more than 10% of all business sales.

The rapid development of IT is stunning and part of the reason that the economic giants are fighting over the control of its future. The telecommunications market in 1999 ranked third in the world behind health care and banking and was growing at twice the rate of the global economy. Revenues were expected to exceed \$ 1 trillion by 2010. Ray Kurzweil, in his 1999 book *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* says, "Computers are about one hundred million times more powerful for the same unit cost than they were a half century ago. If the automobile industry had made as much progress in the past fifty years, a car today would cost a hundredth of a cent and go faster than the speed of light."

In 1981, Bill Gates said, "640,000 bytes of memory ought to be enough for anybody".

At the moment, the world's fastest computer, located at the Lawrence Livermore National Laboratory, has reached more than 136 trillion operations a second. However, on the horizon is the Petaflop, which performs over a quadrillion mathematical operations a second, or eight times the speed of today's fastest computer.

There has been much hope that the Internet could be a source of bringing humanity together in free and open communication. However, as commercial interests more and more see its power and potential economic value, they move towards ownership and control of it, even in the spectrum. Spectrum real estates is likely to become the single most important asset in the world. Only a handful of the wealthiest global media corporations will be able to afford to buy large parts of the electromagnetic spectrum. Owning the global frequencies will give these companies control over communication channels over which tens of millions of people conduct their daily lives. This will change the relationship between ordinary people and global commercial enterprises as citizens become dependent on the media companies for access to the means of communicating.

B. Technology

"The Stone Age did not end because people ran out of stones. The Petroleum Age will not end because we will run out of petroleum. It will end because we have developed superior technologies."

-Fritjof Capra (2002, 257)

The first human species has been named *Homo habilis*, which means "skillful human". Technology is intertwined with human life from its origin. Although today's definition of technology refers to scientific knowledge being applied to a given task in a reproducible manner, technology predates science. Microbiology also shows us that technologies, which we consider to be advanced achievements of our civilization-genetic engineering and establishing a global communication network have - existed for billions of years among bacteria, the drivers of evolution. All of life's essential biotechnologies-fermentation, photosynthesis, nitrogen fixation, respiration, and methodologies for rapid motion - have been carried out by the planetary web of bacteria for at least two billion years.

Civilization has always been shaped by technology. We name the different periods of human civilization by their main technologies - the Stone Age, Bronze Age, Iron Age, Industrial Age, and now the Information Age. Technology is not neutral. It has a powerful impact on culture and civilization, on the way we live, behave and grow. Both in the Industrial Age and Information Age, there has been growing criticism of the adverse effects of technology on the environment and on human society. Proposals for giving more sound direction to these technologies have abounded.

Most of the suggestions for new and sustainable technologies call humankind to learn from nature, which has already achieved marvelous results, far superior to human designs. Scientists are trying to learn how mussels produce glue that sticks to anything in water. To learn from spiders how they spin a silk thread that is ounce for ounce 5 times stronger than steel. To learn from abalone how they grow a shell twice as tough as high-tech ceramics. All of these products are manufactured without any toxic byproducts.

Physicists are working with biochemists to study the complex structures and processes of photosynthesis, hoping to use the results in new kinds of solar cells. At the University of Washington, scientists have been able to imitate the success of abalone shells to create a hard, transparent material for use as an ideal coating for windshields.

However, at the same time as the positive learning from nature and new developments are taking place, opposite unsustainable activities are progressing at an even more rapid pace. Forests are being destroyed with only 20-25 percent of the trees being used to extract cellulose from wood to make paper. To make beer, only 8 percent of the nutrients from barley or rice are used for fermentation. Only four percent of the palm tree biomass is used to extract oil. Coffee beans account for only 3.7% of the coffee bush.

To serve the money-making mentality of global capitalism, biotechnology has abandoned all ethical considerations. Genetic engineering is no longer focused on advancing science, curing disease, or feeding the hungry. Geneticists have close

ties to biotech companies and, in some cases, own the companies in order to take part in this area of unprecedented financial gain. The crucial environmental and human problems from the development and use of transgenic and other genetically modified livestock and crops are the result of the narrow conceptual framework of genetic determinism. The same is true concerning the relationship between genes and disease, as well as the use of cloning in medical research.

III. The World in a Mess

"Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
"Mere anarchy is loosed upon the world".

-W. B. Yeats, "The Second Coming"

The list of serious problems existing in the world today is simply overwhelming. To start with, there is war, terrorism and nuclear proliferation.

On September 27, 2004, James Wolfensohn, then head of the World Bank, commented in 'USA Today' on the wastage of resources on military spending: ... The world is not in great shape. And it's not going to get better unless a few people finally say that spending \$900 billion was being spent globally on military, with the U. S. accounting for about half the amount.

In 1985, US President Ronald Reagan welcomed a group of Afghan Mujahideen to the White House. He announced that they were "the moral equivalent of America's Founding Fathers" (i.e. George Washington, Thomas Jefferson, etc). This was, of course, when the U. S. was using them to fight Soviet force. Somehow, 16 years later these moral Mujahideen who had become rulers of Afghanistan were now worthy of America's great war machine.

Now the U. S. and Russia were united in a common cause, namely to re-destroy one of the poorest countries in the world. Initially, the operation was called Infinite Justice but as Muslims rightly believe that only Allah can dispense infinite justice, the Pentagon thought better and changed the name to Enduring Freedom. As Arundhati Roy, in her essay 'The Algebra of Infinite Justice', points out, the CIA and Pakistan's analogous Inter-Service Intelligence (ISI) combined to help the Mujahideen fight the Soviet Union. When costs of this operation far exceeded expectations, the ISI helped the farmers on the Pakistan-Afghanistan border to become the biggest producers of heroin in the world (with the main market, naturally, U. S. streets).

Roy also addressed in 1996 U. S. National television interview with Madeleine Albright, U. S. Ambassador to the UN. She was asked how she felt about the fact that half a million Iraqi children were killed by the bombardment of the joint forces.

A. Collapse of the Soviet Union

"A bad peace is better than a good war."

-Russian Proverb

In his monumental trilogy, Manuel Castells analyzes major events and present trends in our world. One of the major events - perhaps the most important of the 20th Century - was the disintegration of the Soviet Union.

There have been numerous analyses for the causes of the sudden collapse of the Soviet Union. Castells identifies the following contributing factors:

- i. The centrally planned economy was wasteful.
- ii. A shadow economy put extra burden on the planned economy.
- iii. Agriculture was permanently damaged.
- iv. The military-industrial sector used up creative energy and resources endlessly, without contributing back to its growth.
- v. The Soviet industrialization model, based on exploitation of capital, labor and natural resources reached a stage of exhaustion and slowdown in growth.
- vi. With technological backwardness, industry and agriculture could not compete in the world economy.

In spite of many contributing factors to the Soviet Union's collapse, Castells identifies political mobilization of nationally-based republics (including Russia) against the superstructure of a national federal state as the key lever that caused rapid disintegration. The 70 year experiment to create a Soviet identity was too fragile. Marxism-Leninism failed to fill the ideological void caused by the effort to crush and eliminate national/ethnic identities.

In the estimate of Castells, the most painful failure of the Communist Utopia was the "abduction and distortion of the revolutionary dreams and hopes of so many people." Again he says, "To put it bluntly, all Utopias lead to Terror if there is a serious attempt at implementing them. Theories can be (and have been) useful tools for guiding collective action. But only as tools, always to be rectified and adjusted according to experience. Never as schemata to be reproduced, in their elegant coherence, in the imperfect yet wonderful world of human flesh"(63). The Soviet experiment brought considerable suffering both to the peoples of the Soviet Union, and to the world at large. The caste of cynical bureaucrats, who betrayed the trust of the Soviet Union's peoples, made a mockery of the values of human solidarity. Castells says, "The artificial paradise of theoretically inspired politics should be buried forever with the Soviet Union"(64).

B. Globalization of the Criminal Economy

"It does not do you good to leave a dragon out of your calculations, if you live near him."

J. R. R. Tolkien

The present system of capitalism, with its widespread social exclusion of vast numbers of peoples, helps to spur on the development of the international criminal economy. The exclusionary process is part and parcel of informational capitalism; Castells calls it the Fourth World. It includes much of Sub-Saharan Africa, rural areas of Asia and Latin America, America inner-city ghettos, Spanish enclaves of mass youth unemployment, French banlieues warehousing North Africans, Japanese Yoseba quarters, and the slums of Asian mega-cities. "[The Fourth World] is populated by millions of homeless, incarcerated, prostituted, criminalized, brutalized, stigmatized, sick, and illiterate persons everywhere, they are growing in number, and increasing in visibility" (Castells 168).

Daring, successful criminals have become role models for the socially excluded young generation. They offer a chance of enjoying consumption and living with adventure, activities which are beyond the possibilities of their present life situation. Garcia Marquez, in *Noticia de un secuestro* (1996) describes the fatalism and negativism of young killers in the world of organized crime. Life itself has no meaning, and there is no future. They know they will die soon. Only the moment counts, immediate consumption, good clothing, good life on the run, together with the satisfaction of inducing fear, of feeling powerful with their guns.

Roy describes the seven levels of despair which lead some of the more courageous to offer their own lives in opposing the forces which have pushed the world to where it is. For them, this is the only way of invoking an *all* which is larger than that of the despair. The seven levels of despair, one for each day of the week, are:

"The search each morning
To find the scraps
With which to survive another day

The knowledge on waking
That in their legal wilderness
No rights exist.

The experience over the years
Of nothing getting better
Only worse

The humiliation of being able
To change almost nothing,
And of seizing upon the almost which then leads to another impasse

The listening to a thousand promises
Which pass inexorably?
Beside you and yours

The example of those who resist
Being bombarded to dust

The weight of your own killed
A weight which loses
Innocence forever
Because they are so many"

(Roy, 2002, xxi-xxii)

Drug-trafficking has long been the most important and profitable activity in the criminal economy. Arms deals, trade in radioactive material, human organs, illegal immigrants, prostitution, gambling, kidnapping, extortion, counterfeiting, killers for hire - whatever is prohibited in any society becomes a potential activity of the criminal economy. Many of these activities put a heavy burden on society by increasing social disintegration, as well as requiring costly policing and the use of the judiciary and prison systems.

Money laundering is crucial for the system. Global amounts may now total in the trillions of dollars. The economies of the criminal economy only make business sense if the profits generated can be used and reinvested in the legal economy. With the collapse of the Soviet Union and disorganization in Russia, a huge amount of that country's wealth was appropriated by a few gangsters.

The distorting effects of the unseen criminal economy on monetary policies/economic policies at the national level are becoming more and more difficult to control, due to the global nature of criminality today.

The impact on state institutions is even greater. For example, the illegal drugs traffic relies upon the corruption and intimidation of those meant to control and prevent it. Most cooperate either out of fear of violence to themselves and/or family or due to the wealth they can obtain.

IV. Impact of Economic - Corporate Globalization on World Poverty

"What is globalization? Who is it for? What is it going to do to a country like India in which social inequality has been institutionalized in the caste system for centuries? It is a country in which hundred of millions of people live in rural areas. In which eighty percent of the land holdings are small farms. In which almost half the population cannot read or write.

"Is the corporatization and globalization of agriculture, water supply, electricity and essential commodities going to pull India out of the stagnant morass of poverty, illiteracy and religious bigotry? Is the dismantling and auctioning off of elaborate public sector infrastructure, developed with public money over the last

fifty years, really the way forward? Is corporate globalization going to close the gap between the privileged and the underprivileged, between the upper castes and the lower castes, between the educated and the illiterate? or is it going to give those who already have a centuries-old head start a friendly helping hand?

"Is corporate globalization about 'the eradication of world poverty' or is it a mutant variety of colonialism, remote controlled and digitally operated? These are huge, contentious questions. The answers vary depending on whether they come from the villages and fields of rural India, from the slums and shantytowns of urban India, from the living rooms of the burgeoning middle class or from the boardrooms of big business houses".

-Arundhati Roy (2002, 199-200)

According to World Bank statistics, the number of poor people in South Asia rose from 474 million to 522 million in the 1990s. The increase in Latin America and the Caribbean was 20%. In Europe and Central Asia, the number rose from 1 million to 2.4 million. The increase in Sub Saharan Africa was from 217 to 291 million. Although poverty was reduced in China, 20% of the population was living on less than \$1 per day at the end of the 1990s. The dramatic increase in poverty in almost all parts of the world in the 1990s must be directly related to structural deficiencies in the global economy.

The World Bank's Global Poverty Monitoring database, which provides an overview of poverty trends from 1987-1998 concludes "--- in the aggregate, and for some large regions, all--- measures suggest that the 1990s did not see much progress against consumption poverty in the developing world." UNDP's 1996 Human Development Report documents that since 1980, "economic decline or stagnation has affected 100 countries, reducing the incomes of 1.6 billion people. In 70 of these countries, average incomes are less than they were in 1980 and in 43 countries, less than they were in 1970" (1-2). Similarly, income growth was lower in the 1990s than in the 1980s (and substantially below that of the 1960s and 1970s) in the more economically advanced countries.

In its Global Trends 2015 report CIA experts predicted that globalization would create an even wider gap in income than exists today (referring to 2000). They suggested that globalization's "--- evolution will be rocky, marked by chronic volatility and a widening economic gap.

Castells, in his analysis of the process of informationalism (economic globalization's profit-sharing and production-relations-system), gives in great detail the negative results from this process. In terms of social differentiation, the results are inequality, polarization, poverty, and misery; these all pertain to the relationships of distribution/consumption of the wealth generated by collective effort (see definitions section). In terms of relations of production, Castells proposes that four other processes result from the present economic system, all of which are having great negative impact on people. They are the individualization

of work, over-exploitation of workers, social exclusion and perverse integration. A summary explanation of the analysis given by Castells, in regard to the four results in the process of social differentiation, is explained in the three following sub-sections. The sub-sections deal with Sub-Saharan Africa, urban poverty in the U. S. and the impact on children.

A. The impact on Sub-Saharan Africa

"In 1980, the total external debt of all developing countries was \$609 billion; in 2001, after twenty years of structural adjustment, it totaled \$2.4 trillion. In 2001, Sub-Saharan Africa paid \$3.6 billion more in debt service than it received in new long-term loans and credits. Africa spends about four times more on debt-service payments than it does on health care."

-A report of the International Forum on Globalization, 2002

In Manifesto for a New World Order, George Monbiot provides statistics concerning the situation in Africa and the resulting impact. For example, Sierra Leone spends 6.7 times more on servicing its debt than it spends on primary schooling and only 24% of its children go to school. 90% of the government's revenues are used for debt payments. In Kenya, one of the countries worst affected by AIDS, the number of women seeking help/advice on sexually transmitted diseases went down by 65% when fees were introduced. In Ghana, new fees caused 2/3 of rural families to stop sending their children to school. Cuts in health spending, forced upon Zambia by the World Bank (WB) and the International Monetary Fund (IMF), led to the increase in infant mortality from 97 deaths per 1000 births in 1980 to 202 deaths per 1,000 births in 1999.

Certainly, a major part of the disastrous situation in many African countries is the result of weak and predatory states where power and power networks are personalized. Zaire/Congo was looted over 3 decades by its ruler, Sergeant Mobutu, and his associates, with the open complicity of Western power. Zaire/Congo is now the main source of deadly epidemics such as the Ebola virus, which could cause great havoc globally in the 21st century.

In the analysis by Castells, Africa's greatest tragedy has been the failure to build democratic political legitimacy. Atrocious civil wars for grabbing state power and looting, the displacement of millions, disruption of subsistence, agriculture, uprooting of human settlements, and breakdown of social order can all be traced to the lack of success in promoting this democratic political state authority. Leading Africans have been frustrated by the West's role in destroying this legitimacy and have lost faith in it. A growing number of African countries are now basically in a condition of political anarchy, including Sierra Leone, Liberia and Somalia.

In the CIA's Global Trends 2015, it is foreseen that Sub-Saharan Africa's multiple and interconnected problems will be compounded, ethnic and communal tensions

intensified. Health difficulties will continue to reduce the economically productive adult population, generate a huge cohort of orphaned children and contribute to increased levels of dissatisfaction, crime and political volatility. The number of malnourished people is expected to increase by more than 200%.

The economy of the 1990s was in worse shape than in the 1960s, both in terms of production and consumption. A UN-organized conference concluded that "---- adjustment measures have been implemented at high human costs and sacrifices and are rending the fabric of African society" (Castells, 115).

B. Impact on the United States

"If a free society cannot help the many who are poor, it cannot save the few who are rich."

-John F. Kennedy

In the past two decades, there has been an increase in social inequality, polarization, poverty and misery in the U. S. This is a universal trend in developed economies, though more blatant in the U. S., and a likely sign of the future in Europe, Japan and elsewhere.

The ratio of CEO to worker pay rose from 44.8 times in 1973 to 172.5 times in 1995. Growth of income for the wealthiest 1% was 119.7% from 1977 to 1999. Meanwhile median-family income growth was a mere 0.6% per year in the 1970s, 0.4% in the 1980s, and 0.1% in the 1990s. 80% households declined in their share of national income, from 56% in 1977 to below 50 in 1999.

In addition to these social inequalities, there were similar increases in polarization. In 1999, the top 1% in the U. S. received 12.9% of the national income. The top 20% had 50.4%; an increase from 42.2% in 1977. The poorest 20% received only 4.2%. In terms of wealth (household assets minus debts), there was a similar trend from 1983 to 1997. The top 1% increased their share from 33.8% to 39.1%, while the bottom 80% went down from 18.7% to 15.7%. The poorest 20% had more debt than assets both in 1983 and 1997.

The poverty rate also increased, going from 11.1% in 1973 to 13.3% in 1997. The condition of misery-defined as the poor with incomes below 50% of the poverty level-likewise increased from about 30% in 1975 to 41% in 1997. In 1997, 19.9% of all US children were in poverty; 37.2% of black children. For children less than 6 years old, the percentages were 22% and 40.2%. Workers who were receiving wages below the poverty level increased from 23.7% in 1973 to 28.6% in 1997. Homelessness also skyrocketed; in the late 1980s, it was estimated to include 5 to 9 million people.

C. Impact on Children

"No more turning away
From the weak and the weary
No more turning away
From the coldness inside
Just a world that we all must share
It's not enough just to stand and stare
Is it only a dream that there'll be
No more turning away?"

-Pink Floyd, "On the Turning Away"

The main labor issue of the Information Age concerns the condition of workers. The explosion of low-paid child labor has been one of the most striking characteristics of the economic globalization process. A 1996 International Labor Organization (ILO) report indicated that 250 (24%) of domestic workers in Bangladesh were under 10 years old. It was quite usual that they worked 10-15 hours per day. There were many reports in various countries of physical, mental and sexual abuse of adolescents and young women domestics. The surge in child labor was caused by deepening poverty and the globalization of economic activity. Families and their children were forced into survival strategies. A Bangladeshi mother recently received her young son back from Kuwait, where he worked as a camel jockey for a few years. When asked why she allowed her child to be put in such a situation she explained that their family could not feed him and decided it was better to let him work and at least eat in Kuwait rather than starve in Bangladesh.

The networking of small producers in developing countries-with little margin of profit and large firm investment supplying affluent markets - is helping to push more children into the labor force. It gives flexibility and greater profitability to industry. The main factor for growing child employment is the defenselessness of the children. They can be made to work for minimal pay, in atrocious conditions.

The criminal economy is also reaping increasing profits from the exploitation of children. Many children are sexual commodities in a large-scale industry. One of the fastest growing child prostitution markets was in the U. S. and Canada, with 100,000-300,000 children estimated to be involved in 1996.

The criminal networks link supply to demand in the electronic child pornography industry. Poverty and the crisis of the family supply the "raw material". The network society destroys its own children, reducing humans to an inhumane species.

Furthermore, the effect of war on children is another considerable issue. In the past decades, 2 million children have been killed in wars, 4 to 5 million disabled, over 1 million orphaned/separated from parents, 12 million made homeless and over 10 million psychologically traumatized.

The disintegration of traditional societies in today's world is exposing children to unprotected environments in mega-city slums; children are working for exports to affluent markets; mass global tourism is organized around pedophilia and sex with you; there is now electronic child pornography; the disintegration of patriarchy without a protective system to replace it; and there is a weakening of institutions in support of children's rights. In addition, the supply side is greatly augmented by the weakened family structure, impoverished childhood, disintegration of states and societies, the uprooting of populations by wars, famine, epidemics and banditry. The increase in criminalization and advanced communication technologies with more business networking, spurs on the demand. This is pre-eminently what Castells calls one of the "black holes" of information capitalism.

V. A New Universal Paradigm Needed by Humanity

"[The challenge is] to make the world work for 100% of humanity in the shortest possible time through spontaneous cooperation without ecological offense or the disadvantage of anyone."

-R. Buckminster Fuller

There is a new world for humanity to structure in new ways. This world of humanity is similar to the natural world in that emergence is playing the central role. Chips and computer, ubiquitous mobile telecommunications, genetic engineering, electronically integrated global financial markets and interlinked capitalist economy - all are part of the new world. Similarly the majority of the ideology for the capitalist one, the Cold War has ended, and the Asian-Pacific has become a global economic force. There is a worldwide challenge to patriarchy, consciousness for ecological preservation has grown widely and a network society has emerged. Environmentalism, feminism, defense of human rights, sexual liberation, ethnic equality, and grassroots democracy are issues which have all spawned strong social movements.

But along with these new realities in the world today are new problems and political, social, and economic cleavages. There has been a takeover of the political and democratic processes from states by corporate interests. Predator states in Africa have caused immense human suffering. Weak states have become the base for the burgeoning global criminal economy. There has been a fragmentation of labor with information producers replacing generic labor. There is a growing gap between the market logic of global networks and the human experience of workers' lives, similar to that of governments and citizens' lives. Large segments of populations everywhere have been socially excluded. Child exploitation has increased dramatically.

Religious fundamentalism, nationalism, localism, ethnic separatism, cultural communes break up society to rebuild its institutions from the inside out. The

power grab by the world's dominant economic powers and privatization of essentials of human life and of nature's common heritage is creating multiform resistance movements. Roy says, "What is happening to our world is almost too colossal for human comprehension to contain. But it is a terrible, terrible thing. To contemplate its girth and circumference, to attempt to define it, to try and fight it all at once, is impossible. The only way to combat it is by fighting specific wars in specific ways". (2002, 183-184)

Fundamentalisms are becoming entrenched. Terrorism has seen a modest beginning, but in the future whole cities will be able to be devastated or strikes could be made at nerve centers of our livelihood, such as energy, water, or transport. There is an extraordinary gap between our technological overdevelopment and our social underdevelopment. Humanity needs desperately a framework, a new and universal paradigm, to guide it out of its present morass-the dead end path along which it is traveling.

A. Components of a New and Universal Paradigm

"Give me a lever and a place on which to rest it, and I will move the world."

-Archimedes of Syracuse

Although there is growing despair and discouragement for those aware of and concerned for the direction in which the globalization process has been leading humanity, there remains a foundational confidence that things can be turned around. The Chinese proverb, "If we do not change our direction, we are likely to end up where we are going," is beautiful in its simplicity and wisdom. It captures the concern that growing numbers of humanity have to change directions. This certainly means resistance as Roy advocates. It also means pursuing creative alternatives as Robert Kuttner, Monbiot, the International Forum on Globalization (IFG), and others described in this paper are advocating.

The new understanding of life provided to us by the natural sciences is the starting point for creating a framework, a new paradigm which will respond to the hopes and desires of all humanity. The new scientific paradigm emphasizes that we no longer simply focus on the individual organism, but we can understand it only in the context of its interconnectivity with all living systems. For this reason, universality is essential to a paradigm for humanity.

This metabolic system/process will take the form of the network, as organisms are networks of cells, organs and organ systems and cells are networks of molecules. Metabolic processes likewise reveal the ability to adapt and give great flexibility to all life-forms.

Thirdly, the new universal paradigm must be centered around a process of emergence, allowing for continuous creativity, unrelenting massive change. This requires that power be radically decentralized, that the local creates the global

and that the global dominates the local. Emergency must be recognized as the "dynamic origin of development, learning and evolution" (Capra, 2002, 14).

Fourthly, from the new understanding of evolution and the knowledge that it is not dependent solely or even mostly on gene mutation, on an occasional, accidental process whereby most mutations are harmful. Rather, evolution has redundancy, giving it stability and reliability, even during major crises. The continual gene trading which takes place among bacteria and the process known as symbiosis enrich our understanding of evolution. Redundancy and diversity are qualities to be included in the universal paradigm for its own stability and reliability.

The interconnectivity of the natural and the social sciences is most clearly evident in the consideration of mind and consciousness. Matter and mind cannot be separated but are in most intimate association. The physical brain structure, with its billions of neurons and neuronal connections, the thinking process, whereby humans can "read the minds" of others and human self-awareness happens all these reveal the inseparability of the physical and non-physical.

The discovery by Fouts, of autistic children learning to speak after several weeks of communicating by signs, may indicate that these children made the six-million year journey from apelike gestures to human speech within those few weeks. The new science of neurophenomenology - the disciplined examination of experience interrelated to the analysis of neural patterns and processes- is a specific example of building a partnership between the natural and social sciences.

Several examples of the interconnectivity of the natural and social sciences have been mentioned above, such as the opposition between nature's diversity and monocultures of the corporate economy; the dynamism, adaptability and flexibility of the metabolic system as opposed to the collapse of the Soviet Union due to rigidity of its economic system (among other causes); and the similarity of emergent patterns in ant colonies, cities and software. The centrality of culture and technology, in both reflecting on the present world situation and in shaping a new paradigm, were also discussed.

Examples of a few major problematic realities and issues were presented to demonstrate the unworkability, unserviceability of the present paradigm for the majority of humanity: war; the collapse of the Soviet Union and the effects of its 70 year appearance on the world stage; globalization of the criminal economy and the impact of economic-corporate globalization on world poverty, with its specific impact on Sub-Saharan Africa, the United States, and on children. There are other critical issues, such as the environmental degradation putting the entire life system at risk, which could not be discussed due to logistical limitations of a paper such as this. However, the sectional title, "The World in a Mess," announces again the need for a new paradigm more responsive to all life.

VI. Issues to be addressed in the New Paradigm

"As soon as in a democracy the few outstrip the many in the matter of wealth, the State must either perish or cease being a democracy".

The long list of ills in the world today may be mostly categorized in terms of three problematic processes. The structure and effects of the economic-corporate globalization process is the first and foremost of these. Secondly, the loss of self-governance and democracy, essential to humankind but co-opted by the powerful, mostly economic elite who formulate and guide the present paradigm. Also related to the above two problem areas is the marginalization of great numbers of peoples and the general impoverishing social trends in the world today.

Anthony Giddens, director of the London School of Economics, maintains that institutions need modernization to include solidarity, social justice, and protection of the vulnerable; active government is needed to achieve these. Will Hutton, author of *The State We're In* and *The State to Come*, says that social justice is a condition of liberty and that it is proper of the democratic will to be asserted over business and private power. In his article "Freedom and Democracy: America's Ultimate Polytheism," Bob Crane, a U. S. scholar, says that we should respect, "--- the wisdom of America's founders who taught that justice is the best cure for chaos and that "freedom" without justice is fraud. The Neo-Cons cannot even understand why the Founders in the Preamble to the American Constitution listed justice as the first of five purposes for the new polity and listed freedom last"(3).

Castells describes how a new era began on October 27, 1987 with the City of London's Big Bang the deregulation of capital and securities markets. By 1998 the average daily exchange in currency markets was equivalent to \$1.5 trillion. He sees this electronically based system of financial transactions, outside human control, as an Automaton. Though he feels this Automation has to be brought under control, such may be unlikely unless there is a "dramatic financial crisis or social upheaval" (Hutton, Giddens, 70) because there is U. S. opposition to any financial regulation as the current system is of great, if short-term, advantage to the U. S.

George Soros, a top member of the global economic elite, writes that a more level playing field for countries "on the periphery" is essential to contain the rising tide of nationalism from endangering the global capitalist system. Jeff Faux and Larry Mishel, President and Vice-President of the Economic Policy Institute in Washington, D. C., contend that countervailing institutions and policies are needed to slow further trade and capital liberalization. Their three specific suggestions are:

- (i) Debt reduction and, in some cases, forgiveness, for the poorest nations and enhancement of policies to spur domestic development.

- (ii) Enforceable protection of core human and labor rights in trade and investment agreements, while strengthening the ILO's monitoring capacity and making adherence to such rights a condition for economic relationship with world bodies.
- (iii) Reduction of financial volatility, a tax on international securities transfers and an end to bail-outs to pay off private creditors, leaving poor nations with unplayable debts.

Another proposal, which has practical potential for changing the present paradigm, was put forward by leading U. S. Democratic Senators in 1996. It was the idea of the Responsible Corporation, whereby the U. S. government would reward responsible corporate behavior with special tax breaks. Unfortunately, the proposal was scuttled due to pressure from Wall Street. Hutton believes it would be feasible to build an international coalition to do something similar.

The above examples are the kind of proposals coming from so many and such diverse sources. There are those who believe the system can be changed by reforming institutions and policies, while others insist that completely new institutions are required. Some proposals emphasize decentralization of the system, while others claim that only new global institutions can help.

A. Analysis of the Situation and Proposals for Change from Robert Kuttner

"The further backward you look the further forward you can see."

-Winston Churchill

Kuttner is Co-Editor of *The American Prospect*. In his recent book, *Everything for Sale: The Virtues and Limits of Markets*, Kuttner comments on one of the great political achievements of the 20th century: "the domesticating of laissez-faire capitalism's brute power, under democratic auspices" (Hutton, Giddens, 152). Democratic governments worked towards economic stability and steady growth through micro-economic policies. They regulated the more destructive tendencies of markets, while empowering trade unions and later creating environmental standards. Other contributions from the governments towards this system included the provision of social insurance, financing of education and training to school children and workers, and the making of direct public investments. All of these led to a type of capitalism which was more socially acceptable and economically efficient than the present model.

While there was little low-wage competition outside Europe and North America, there was a period of high growth and full employment. Ordinary working people had rising living standards together with social support and economic security. The task presently is to figure out what kind of global economic context is compatible with a managed market economy at the state level, as well as the kind of politics required for supporting the economic project.

A century of achievements through democratic struggle have been undercut by the ability of industry to outsource production to areas of the world with little or no social or environmental regulation. States are now unable to police their banks, stock exchanges and capital markets, as well as their social standards. An entire economic system is undermined, "with great costs to stability, security, opportunity, growth and democratic citizenship"(Giddens, Hutton, 155).

Kuttner maintains that a third path, which will promote reconstruction of a mixed economy, is required. To accomplish this, either nation-states reclaim power over market forces or new transnational institutions of governance must be established. Kuttner believes there is an alternative to simply accepting a downward convergence of wages and benefits as an inevitable price to be paid for the "efficiency" of the global market. Re-regulation of capital flows is necessary if governments are to reclaim the capacity to pursue the combined policies of high growth and social justice.

What is needed is a global economic regime which allows the mixed economy to flourish in each individual country. It will require the show-down of short-term speculative movement of capital and currency trades. Labor and environmental rights must be on a par with property rights. There must be a financial regulatory system with global standards and an end to unregulated offshore havens. Professor James Tobin's proposed tax on financial transactions should be reconsidered. Likewise, the good idea which was initiated by the government of Chile required any foreign investor to place 30% of the investment amount on deposit with the Chilean central bank for a year, as insurance against capital flight.

The IMF and World Bank must again become agents of growth and stability rather than of austerity. There have to be globally accepted taxation conventions which prevent multi-national corporations (MNCs) from playing national governments against each other for tax concessions.

The emergence of regional entities such as the EU can facilitate the rebuilding of a mixed economy. Construction of stronger institutions of global governance, which are outside the control of corporations and specific economic interests are also important. A new strategy may need to be adopted to limit laissez-faire trade to regions with similar regulatory and social standards.

B. Analysis of the Situation and Proposals for Change from the International Forum on Globalization (IFG)

"The basic moral problem that faces man as he moves into the age of automation, the age of accelerating conquest of nature, is whether he is really fit to live in an industrial society; whether his institutions will adjust rapidly enough; whether he will rivet himself with an absurd institution like full employment in the economic order when it is not only unnecessary but unadministratable in anything but a slave society; whether freed from the necessity to devote his brain and brawn to

the production of goods and services, he can address himself to the work of civilization itself."

-Luis O. Kelso

For the IFG, the main issue is governance; will people have a democratic voice in deciding what rules are in the best interest of the society? Or will small ruling elite, meeting in secret and far from public view, be allowed to set the rules that shape the human future? Who will care for the health and well-being of people and the planet if the only concern for decision-makers is personal profit?

IFG is especially concerned that the quality of life for the majority of the world's people is deteriorating. The number of chronically hungry people declined steadily during the 1970s and 1980s but has been increasing since the early 1990s. It is predicted that by 2008, 2/3 of the people of Sub-Saharan Africa and 40% of the people of Asia will be undernourished. More and more people must live with violence and insecurity. These are spreading together with growing inequality, an unraveling social fabric, and the collapse of critical environmental systems.

The basics of human life are beginning to be privatized and available only to those who can pay for them. The corporate world is encroaching on all spheres of life: health care services, basic education, drinking water, traditional seed varieties, and the genetic and molecular building blocks of life, including the human genome.

In addition, most large corporations are massively inefficient, wasting nature's and society's resources. They are surviving on subsidies, exemptions and indirect benefits gained by paying less than a living wage, maintaining substandard working conditions, marketing hazardous products, dumping untreated wastes into the environment and extracting natural resources from public lands at below-market prices. CPA Ralph Estes estimates that in 1994 corporations extracted more than \$2.6 trillion in such subsidies in the U.S. alone-about 5 times their reported profits. This suggested that global corporations benefited \$10.7 trillion annually from public welfare benefits.

According to the IFG, the primary change needed is to promote economic democracy, involving equitable participation of all people in the ownership of the productive assets on which their livelihood depends. If this essential change is made, there would be a diffusion of economic power leading to a similar diffusion of political power and re-establishment of political democracy. The growth of economic democracy would likewise provide a more firm foundation for individual, community, and national economic self-determination.

From a macro-perspective, three major changes would characterize a shift from domination by global corporations toward more democratically, socially and ecologically sustainable enterprises. Firstly, there would be a reversal of

corporate concentration, giving priority to smaller businesses and the sharing of income more equitable. Secondly, businesses would be required to be rooted in one place removing the present mobility enjoyed by global corporations. As they would be owned by people who have direct involvement in their operation, they would serve to give strength and efficient and sustainable enterprises. Accountability is built into the economic system as ownership is local and the owners must bear the actual outcomes of their decisions. Similarly transparency and openness are essential.

The IFG also maintains that much of the change required will be for repairing the enormous damage caused by the Bretton Woods institutions. Specific targeted recommendations are:

"Debts must be cancelled, commodity prices stabilized, control established over the goods and money flowing across borders, anti-trust measures implemented to break up concentrations of corporate power, corporations with repeat criminal convictions dischartered, national economies rebuilt and redirected with proper regulatory regimes to meet local needs, the environment healed, the power of corporations curbed, financial speculation brought under control, wealth redistributed to create a semblance of equity, and the democratic accountability of governments established" (IFG 225).

In addition, common heritage resources must be shared among all. These include physical resources such as water, land and forests. Secondly, culture and knowledge are collective creations of our species. And lastly, modern common resources which address basic needs such as public health, education, and both personal and social security.

C. Analysis of the Situation and Proposals for Change from George Monbiot

"If I could make a wish
It would not be for power or riches
But rather for, a passion for the possible
I'd want only a glance, eternally young,
Which sparkles away?
And allows shining through
My yearning to glimpse the impossible"

-Soren Kierkegaard

In Manifesto for a New World Order, Monbiot clearly identifies the sources of the major problems in the world and the bearers of responsibility. He indicates the reasons why reform of existing organizations is not feasible for resolving the problems and proposes the creation of four new global institutions.

Relationships with advanced economies, formerly colonial, have been predatory for the past 500 years. Once "independence" was obtained by the former

colonies, the current trading system was fashioned by the colonial powers to ensure that wealth flowed from their weaker trading partners into their own economies. The system moved from formal colonialism to informal coercion. Despite a net transfer of natural wealth from the poor world to the rich world over these 500 years, the poor are said to owe the rich \$2.5 trillion.

The Native American leader Guaicaipuro Cuauhtemoc says that between 1503 and 1660, 185,000 kilograms of gold and 16 million kilograms of silver were shipped from Latin America to Europe. His people would view this transfer not as a war crime but as a friendly loan, granted by America for Europe's development. If the indigenous people of Latin America charged a modest 10% compound interest on this loan, Europeans would owe Native Americans a volume of gold and silver which exceeded the weight of the planet.

Heinrich Haussman has demonstrated that one pfennig (about half a U. S. cent) invested at 50% total debt in the form of interest, but still owed three times more in 1996 than they did in 1980. The world economy has been designed by the wealthy and powerful and is very kind to them. In 2002, the ten wealthiest persons in the world had a combined wealth of \$266 billion, five times the annual flow of aid from rich to poor nations. There is a series of simultaneous and connected processes, which lead to empowering capital and taking away citizen's ability to shape their own lives. These processes include removal of controls on the movement of capital, removal of trade barriers, change in the rules for companies trading within the borders of poor countries (called "harmonization"), growth of MNCs and their displacement of local and national businesses. In contrast to the obligations imposed on the poor the U. S., the world's biggest international debtor (\$2.2 trillion), does not suffer any restrictions. Rather than imposing austerity programs, inflation control or forced liberalization, the U. S. benefits from the IMF and WB insistence that foreign exchange reserves be held in dollars. From this, the U. S. gets three subsidies:

- i. The IMF/WB required that dollar resources be invested in the U. S., strengthening its capital account.
- ii. Poorer nations pay 18% interest on borrowed dollars, but lend back to the U. S. at 3% interest.
- iii. The U. S. receives seignorage, i. e. the difference between the currency value and its production cost.

The U.S. uses its position and power to manipulate international economic and political situations in its favor. An example is the UN resolution permitting the U. S. to wage war on Iraq in 1990. Upon recognizing potential opposition from temporary members of the Security Council, the U.S. bought the votes of Zaire, Ethiopia and Columbia by persuading Saudi Arabia to offer them free oil. This left Cuba and Yemen as the only two members to vote against the resolution. As

reported by Thalif Deen's article, "UN Credibility at Stake Over Iraq," in Washington's Inter Press Service News Agency on 1 October 2002, the U. S. ambassador told the Yemeni representative, "[that was] the most expensive vote you will ever cast." Three days later, the U. S. cancelled its \$70 million of annual aid to Yemen.

In 2002, the U. S. gave \$3.9 billion, or three times its entire aid budget for Africa, to merely 25,000 cotton farmers, reducing world prices by an estimate 26% and badly damaging the livelihood of millions of farmers in Africa and other poor countries.

Corporations, under what is known as the military-industrial complex, have obtained inordinate power, as have financial speculators; they have made practically all governments the representatives of global capital. The coercive power of economic globalization is now unmatched by the moral power of political globalization.

The UN was given three responsibilities when it was established but only constitutionally empowered for the first. It was to mediate between states with opposing interests. Secondly, it was to restrain the way states treated their own citizens. Finally, its global responsibility was to represent the common interest of all people in the world. Though the UN was founded save the world from the "scourge of war", 30 million people, mostly civilians, have since died in armed conflicts. The five permanent members of the Security Council are the world's five biggest arms dealers. The Soviet Union regularly used its veto to protect its own invasions and other military actions. In addition, the U. S. has launched over 200 armed operations to further its political and economic interests since 1945.

Some have suggested that an NGO forum be established alongside the UN, but Monbiot sees this as a potential disaster. He does not see NGOs contributing to the democratic movement needed to reconcile the conflicts.

The IMF and World Bank are also not able to be reformed, according to Monbiot, in order to serve impartially for the good of the world's people. They follow the principle of \$1,1 vote but require 85% agreement for any resolution to be passed. Owning more than 15% stock in each institution, the U. S. could prevent any change not in its favor.

Though the IMF and World Bank put pressure on poor countries for "good governance" and "democracy", they themselves are known throughout the developing world as having poor governance and lack of democratic practice. They are seen as tools of the wealthy nations to help them get access to the natural resources in poor countries, establish their corporations and benefit from the markets of the poor. These institutions no longer even pretend to help the poor, but rather are concerned about receiving their debt repayments and transferring their wealth to the rich nations.

Monbiot, after analyzing the major problems in the present economic-political global situation and explaining why current institutions cannot be reformed, comments on proposed solutions and specific actions which could be undertaken for creating a new world order.

He maintains that an essential action is to bring the corporation under control of the democratic will. Since it has been the source of so many of the world's ills and is now a dangerous entity, human beings must realize that it is simply a means of exchanging goods and services for money, not a person but a machine lacking rights, privileges and powers.

Some have proposed that the adverse situation can be changed through what is termed "consumer democracy," shareholder democracy, or simplicity. Monbiot maintains that such an approach is too weak and diffuse to cause major change. The concept of replacing the global with a local economy both locks the poor into poverty and avoids the issue of political power.

Monbiot calls democracy "the least-worst government system". Since it has the potential for its own improvement, it outranks other systems. The problem with democracy today is that power has been migrating to the global sphere and people have been alienated. There is no democratic control over the global economic institutions. Although there is a division of opinion as to whether to re-democratize politics (at the national and local levels) or democratize globalization, Monbiot insists on the latter. Likewise, he does not believe reform is possible but maintains that revolution is the only true solution for promoting a new world order. Critics have always scoffed at the possibility of a revolutionary change, but it has historically occurred when there is mass mobilization and strong political will.

The present globalization process had already, unwittingly, laid the groundwork for the world's people to free themselves from the dictatorship of vested interests. Monbiot explains:

"Corporate and financial globalization, designed and executed by a minority seeking to enhance its wealth and power, is compelling the people it oppresses to acknowledge their commonality. Globalization is establishing a single, planetary class interest, as the same forces and the same institutions threaten the welfare of the people of all nations. It is ripping down the cultural and linguistic barriers which have divided us. By breaking the social bonds which sustained local communities, it destroys our geographical loyalties. Already, it has forced states to begin to relinquish nationhood, by building economic units-trading blocks-at the level of the continent or hemisphere" (Monbiot, 8-9).

In addition, globalization has eliminated the ideologies which divided the world, creating a political space in which a new, global politics can grow. By taking over state power for its exploitative purposes, it has created disenchantment

everywhere. Through the issues of endless nation's economies, whose banks have reserves of only \$1.3 trillion. Through the new communication and transport networks, globalization has given the world's people the means by which they can come together and coordinate their revelation.

For implementation of the "revolution," four institutions need to be installed, beginning with the creation of a democratically elected world parliament. Second, a democratized UN General Assembly would assume the powers vested in the Security Council. Third, an International Clearing Union would automatically discharge trade deficits and prevent the accumulation of debt. Finally, a Fair Trade Organization would restrain the rich while emancipating the poor.

Monbiot describes in some detail the manner in which the new institution of a world parliament could be organized and funded. In *Manifesto for a New World Order*, he presents the system with safeguards for ensuring that people everywhere are equally listened to and contributing to decisions which affect their lives (67-137). The greatest challenge perhaps to realizing a new global democratic body would be resistance by the nations and peoples who would have to relinquish power. However, a world parliament would become realistic if mass mobilization and political will, the bases for a revolution, are realized.

In 1994, the IMF and World Bank were established through an agreement formulated in Bretton Woods, New Hampshire, U. S. One of the key participants at the meeting was John Maynard Keynes, considered the best economist of his day. Unfortunately, the proposal he made for establishing a global bank, which he called the International Clearing Union (ICU), was over-ruled by the American negotiator in favor of the presently existing World Bank.

The main components of the ICU were to be as follows:

- i. The bank would issue its own currency, exchangeable with national currencies at fixed exchange rates. This currency (the *bancor*) would be used to measure a country's trade deficit or trade surplus.
- ii. Every country would have an overdraft facility in its ICU account, equivalent to half the average value of its trade over the previous five years. This would ensure that deficits and surpluses added up to zero.
- iii. Any country using more than half of its overdraft allowance (having too much trade deficit), would be charged interest on its overdraft and would be obliged to reduce its currency value by up to 5% (making its exports more attractive). It would also have to prevent the export of capital. This could serve as a strong incentive for every country to avoid both trade deficits and trade surpluses.

- iv. Any nation with a credit balance more than half the size of its overdraft facilities would be charged 10% interest and would be obliged to increase its currency value and to allow the export of capital. If by the end of the year, its credit balance exceeded the total overdraft value, this surplus would be confiscated.
- v. All surpluses and interest payments would be transferred to the ICU's Reserve Fund, which could be used for such things as elections to the world parliament and for its operations costs.

The rules of the ICU would change the way in which nations with a trade surplus operated. Firstly, exports would become less attractive due to currency valuation. Secondly, capital would not leave nations with major deficits for nations with large surpluses.

Keynes brilliantly designed a system whereby both deficit and surplus nations would be brought back to equilibrium. As Monbiot comments:

"Instead of temporary debts leading to permanent debts, and small debts leading to big ones, credit and debit would cancel each other out by the end of every year. The economic and political power of the creditor nations would no longer accumulate, just as the present weakness of the debtor nations would no longer drive them further into dependency" (163).

The third new institution proposed by Monbiot is a Fair Trade Organization (FTO). It is estimated that an increase of 1% in the share of world exports for poor countries would reduce the number of extreme poor by 128 million, 12% of the total. The question of fair trade has brought together many of the poor countries to resist the wealthy in the framework of the WTO. As the wealthy continue to give immense subsidies in agriculture, they press the poor to reduce their small subsidies. Awareness by the poor has created great anger at the hypocrisy of wealthy nations.

Preconditions for fair trade would permit poorer nations and poorer people within them to rise from poverty and compete on equal terms with the wealthy. Infant industry protection has allowed almost all the world's presently wealthy nations, to develop and would be a first step for the poor to rise. Tariff barriers and other import restrictions, along with development and export subsidies, would be employed until the nations reached a certain level of wealth.

Poor nations also could impose strict conditions upon foreign investors whereby they would have to leave behind more wealth than they extract. Intellectual property protections could be set aside to give the poor the technology transfer now denied by trade rules.

Wealthy nations would be required to remove trade barriers. They could neither subsidize their industries nor put any restraints on imports from poorer nations.

Though this seems discriminatory, it is the best way to create a level playing field. As poor nations develop, they too would be required to give up the special helpful measures mentioned above. Thus, temporary protectionism would be used as a means for promoting development and accelerating redistribution of wealth among nations. These policies would also reduce the need for foreign investment and domestic long-term dependency on MNCs.

The new fair trade system would be flexible, allowing countries to use or not use particular tools for development. Monbiot again points out that recent history contains a proposal which could have fostered many of the objectives mentioned above to promote fair trade. It was called the International Trade Organization (ITO) and was proposed by the U. S. in 1943. Its charter was drafted in Havana in 1948 and U. S. President Truman defended it to the U. S. Congress. However, after strong corporate lobbying causing delayed consideration, it was dropped in 1950. Even the WTO, in theory, provides for the "special and differential treatment" of poorer countries.

In addition to changing the rules governing trade among nations, an FTO would address the balance of trade by ensuring that temporary deficits did not contribute to permanent debt. The FTO would be empowered to monitor implementation of the policies for fair trade and impose penalties on nations which disregard them. The ICU and world parliament would equally be capable of overseeing justice for all nations.

The fourth and final major institutional change proposed by Monbiot is the democratization of the UN, taking away the privileged position of the permanent members and transferring all functions of the Security Council to the General Assembly.

VII. A Universal Paradigm: Making Justice Live

"The present evolutionary crisis of humans on planet Earth is that of a final examination for their continuance in the Universe. It is not an examination of political, economic, or religious systems, but of the integrity of each and all individual humans' responsible thinking and unselfish response to the acceleration in evolution's evermore unprecedented events."

-R. Buckminster Fuller

In the new paradigm, the relationship between the parts and the whole is reversed. The properties of the parts can only be understood from the dynamics of the whole. Ultimately, there are no parts at all. What we call a part is merely a pattern in an inseparable web of relationships. The entire web of relationships is intrinsically dynamic.

In the new paradigm, the question is no longer what people will get from globalization; it is now what would people want from globalization, if they could

choose. From the reflections and discussions in this paper, some of the main elements of what they want are quite clear.

Firstly, the need for global governance which will be for the good of society, the economy and the environment needs to be created. Secondly, the economic globalization process must be radically re-directed so that the world's wealth is equitably distributed and social exclusion is brought to an end. As Confucius has said, "Where wealth is centralized the people are dispersed where wealth is distributed, the people are brought together."

The specific contents of the universal paradigm would include the defense for the welfare state, of social solidarity, stable employment and workers', rights. Even more basic to establish economic and political democracy, as well as justice for all, is the issue of the equitable ownership of the productive assets of the world community.

Also to be included in the new paradigm is concern for what Castells calls the Fourth World and dealing with the "black holes of capitalism." Human rights must be central to the future. Democracy must be reaffirmed, with particular extension to citizen participation at the local and regional levels.

The vitality of cultures rooted in history and in various places and contained in languages, needs to be supported against commercialization of culture and the culture of real virtuality. Identity both personal and communitarian--must be understood as a sine qua non of human existence.

In the political, social and economic realms the local must take precedence over the global. With local empowerment will come an explosion of creativity, continual change and new life. Global politics and institutions must focus on providing opportunities at local levels, supporting these efforts, and coordinating the positive results for the good of humankind and of nature.

Definitions/Explanations of Terms

Capitalism: An economic system wherein there is the private ownership of property, price signals set in markets guide economic activity, and the desire for profit is expected to be the motivation for action.

Culture: Initially, culture referred to the cultivation of crops and rearing/breeding of animals. In the 16th century it was extended to the active cultivation of the human mind. In the 18th century it acquired the meaning of a distinctive way of life of a people. In the 19th century the plural "cultures" was used especially in comparative anthropology. The Columbia Encyclopedia defines culture as "the integrated system of socially acquired values, beliefs and rules of conduct that delimit the range of accepted behaviors in any given society."

Culture of Real Virtuality: A system in which reality itself (that is, people's material/symbolic existence) is fully immersed in a virtual image setting, in the

world of make believe, in which symbols are not just metaphors, but comprise the actual experience.

Democracy: A form of government in which sovereignty resides in people and gives them an inalienable right to self-governance. In democracy, people have equal rights; the will of the majority is expressed and exercised through voting and elections between competing candidates and parties. Governments are the voluntary creation of people and therefore subject to their will.

Development: An increase in one's ability to satisfy one's own needs and legitimate desires, as well as those of others. It is not the same as growth, which can only be justified if it contributes to development. Development has four aspects: the pursuits of (1) truth (through science, technology, and education), (2) plenty (through economics), (3) the good (through ethics and morality), and (4) beauty and fun (through aesthetics).

Ecodesign: The application of our ecological knowledge to the fundamental redesign of our technologies and social institutions so as to bridge the current gap between human design and the ecologically sustainable systems of nature.

Ecoliteracy: The understanding of the principles of organization that ecosystems have evolved to sustain the web of life.

Economic: The process by which national economies are increasingly linked through trade, financial flows, and foreign direct investment by multinational firms.

Emergence: The ability of a living system to move from low-level rules to higher-level sophistication. These are bottom-up, not top-down, systems. It is technically known as self-organization. It has been recognized as the dynamic origin of development, learning and evolution; in other words, creativity is a key property of all living systems.

Governance: It is not the same as government. It is the framework of rules, institutions and practices that set limits on the behavior of individuals, organizations and companies.

Industrialism: A mode of development in which the main sources of productivity are the quantitative increase of factors of production (labor, capital, and natural resources), together with the use of new sources of energy.

Inequality: The differential appropriation of wealth (income and assets) by different individuals.

Informationalism: A mode of development in which the main source of productivity is the qualitative capacity to optimize the combination and use of factors of production on the basis of knowledge and information.

Information Society: It is not society that uses information technology. It is the specific social structure, associated with, but not determined by, the rise of the information paradigm.

Justice: Functionally, justice is a set of universal principles that guides people in judging what is right and what is wrong, no matter what culture and society they live in. Justice disposes a person to respect the rights of others and to establish in human relationships the harmony that promotes equity and fairness with regard to other persons and to the common good. The basis of justice is the dignity of each human person. Justice reflects the qualities of balance and equivalence.

There are various types of justice such as commutative, distributive, participative and individual. Social justice has, as object, the common good of the entire human society. It guides humans in creating and perfecting institutions and requires each member of the society the duty of work with others to design and continually perfect institutions as tools for personal and social development. Economic justice is a subset of social justice concerning the creating, maintaining and perfecting of economic institutions. The ultimate purpose of economic justice is to free each person economically to develop, to the full extent of her potential, as human being.

Misery: Refers to what social statisticians call "extreme poverty", that is the bottom of the distribution of income/assets, or what some experts conceptualize as "deprivation", introducing a wider range of social/economic disadvantages. Manuel Castells, for example, uses the term to refer to those who are more than 50% below the poverty level.

Network: A connective system composed of nodes, without the need for a center. The nodes may be of different sizes and may be linked by asymmetrical relationships.

Network Society: A society made up of networks of production, power, and experience, which construct a culture of virtuality in the global flows that transcend time and space.

Network State: A state characterized by the sharing of authority along a network, such as the European Union. Since a network has nodes that may be of different size, a network state does not preclude the existence of political inequalities among its members.

Nonlinear Dynamics complexity Theory: "Complexity" is derived etymologically from the Latin verb *complicare* ("to twine together") and the noun *complexus* ("network"). Thus the idea of nonlinearity—a network of intertwined strands—lies at the very root of the meaning of "complexity". It is a new mathematical theory a body of mathematical concepts and techniques to describe and analyze the complexity of living systems.

Paradigm: The mind-set by which humans think about reality as well as the conceptual tools which help create, constantly innovate and change this mind-set. These conceptual tools may be summarized as "bottom-up intelligence", emergent thinking or self-organization.

Phenomenology: An important branch of modern philosophy founded by Edmund Husserl at the beginning of the 20th century and developed further by Martin Heidegger and other philosophers. Its central concern is the disciplined examination of experience, with the hope that a true science of experience would be established in partnership with the natural sciences.

Poverty: An institutionally defined norm concerning a level of resources below which it is not possible to reach the living standard considered to be the minimum norm in a given society at a given time (usually, a level of income per a given number of members of a household, as defined by governments of authoritative institutions).

Social Exclusion: The process by which certain individuals and groups are systemically barred from access to positions that would enable them to an autonomous livelihood within the social standard framed by institutions and values in a given context.

Subsidiary Principle: Power and decision-making must reside at the lowest level competent to deal with such. Higher-level authorities and institutions only take charge of decisions that lower levels cannot assume effectively.

Symbiosis: The tendency of different organisms to live in close association with one another and often inside one another like the bacteria in our intestines.

Technology: The original Greek *technologia*, derived from *techne* meant a discourse on the arts. First used in English in the 17th century, it meant a systematic discussion of the "applied arts," or crafts. In the early 20 century the meaning was extended to include not only tools and machines but also nonmaterial methods and techniques, meaning a systematic application of any such techniques. Today, most definitions emphasize its connection with science. One definition by Manuel Castells is "the set of tools, rules, and procedures through which scientific knowledge is applied to a given task in a reproducible manner" (Capra, 2002, 92-93)

Universal: Everything is embedded in the universe through nature and evolutionary processes; human cognition recognizes this, accepts it, and partners with it to promote ecological sustainability.

Universal Paradigm: Humanity develops a way of thinking by which all personas are seen as having equal value and as belonging to the universe, which is the home for all life. All people join together to constantly contribute new insights to a mind-set which is committed to learning from, preserving and promoting the gifts of the universe, nature and evolution for ecological sustainability of our universe.

References

- Ackoff, Russell L.; Rovin, Sheldon. *Redesigning Society*. Stanford, California; Stanford University Press, 2003.
- Boff, Leonardo. *Cry of the Earth, Cry of the Poor*. Trans. Phillip Berryman. Maryknoll, New York: Orbis Books, 1997.
- Capra, Fritjof; Matus, Thomas; Steindi-Rest Daid. *Belogiy*
- Capra, Fritjof; *The Hidden Connections*. New York: Doubleday, 2002.
- Challen, Peter; Shakespeare, Rodney. *Seven Steps of Justice: Two Basic Incomes for All, Capital Ownership for All, A Proper Deal for Women, Solution to Middle East and Kashmir*. London: New European Publications, 2002.
- Chambers, Robert. *Rural Development: Putting the Last First*. Essex, England: Longman Group limited, 1983.
- Christensen, William. "A New Path for the 21st Century: The Way to Economic, Social, and Political Justice for All." 7 June 2000.
- Christense, William. "From Imperialism to polarization; From Community to Liberation." 2005.
- Clark, Julie; Driscoll, William, eds. *Globalization and the Poor: Exploitation or Equalizer?* New York, Amsterdam, Brussels: International Debate Education Association, 2003.
- Dalai Lama. *Ethics for the New Millennium*. New York: Riverhead Books, 1999.
- De Soto, Hernando. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books, 2000.
- Escobar, Arturo. *Encountering Development: The Making and Unmaking of the Third World*. Princeton, New Jersey: Princeton University Press, 1995.
- Fanon, Frantz. *The Wretched of the Earth*. New York: Grove Press, 1963.
- Gandhi, M. K. *A Thought for the Day*. Nee Delhi: Government of India Publications Division, 1968.
- Gardels, Nathan P., ed. *At Century's End: Great Minds Reflect on Our Times*. La Jolla: ALTI Publishing, 1995.
- Gates, Jeff. *Democracy at Risk*. Cambridge: Perseus Publishing, 2000.
- Giddens, Anthony; Hutton, Wille, eds. *Global Capitalism*. New York; The New Press, 2000.

"Global Trends 2015: A Dialogue about the Future with Nongovernmental Experts." National Intelligence Council. <<http://www.cia.gov/cia/report/globaltrends2015//index.html>>.2000.

Goldsmith, Edward; Mander, Jerry, eds. *The Case Against the Global Economy*. San Francisco: Sierra Club Books, 1996.

Gorelick, Steven; Merrifield, Todd; Norberg-Hodge, Helena. *Bringing the Food Economy Home: Local Alternatives to Global Agribusiness*. London: Zed Books Ltd., 2002.

Greider, William. *One World Ready or Not: The Manic Logic of Global Capitalism*. New York: Simon & Schuster, 1996.

Huntington, Samuel P. *The Clash of Civilizations and the Remaking of World Order*. London: Penguin Books, 1996.

International Forum on Globalization (IFG) "Alternatives to Economic Globalization." IFG Report. San Francisco: Berrett-Koehler Publishers. Inc., 2002.

Johnson, Steven. *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. New York, Scribner. 2001.

Kurzweil, Ray. *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. New York: Viking, 1999.

Linden, Eugene. *The Future in Plain Sight: Nine Clues to the Coming Instability*. New York: Simon and Schuster, 1998.

McKenna, Megan. *Rites of Justice: The Sacraments and Liturgy as Ethical Imperatives*. Maryknoll, New York: Orbis Books, 1997.

Monbiot, George. *Manifesto for a New World Order*. New York, London: The New Press, 2003.

"Our Global Neighborhood: The Report of the Commission on Global Governance." New York: Oxford University Press, Inc., 1995.

Platts, Jim. *Meaningful Manufacturing*. York, England: William Session Limited, 2003.

Postrel, Virginia. *The Future and Its Enemies: The Growing Conflict Overt Creativity, Enterprise and Progress*. New York: Simon and Schuster, 1998.

Quigley, William P. *Ending Poverty as We Know It: Guaranteeing a Right to a Job at a Living Wage*. Philadelphia: Temple University Press, 2003.

Rifkin, Jeremy. *The Age of Access: The New Culture of Hypercapitalism, where all of life is a paid for experience*. New York: Tarcher/Putnam, 2000.

- Roy, Arundhati. *The Algebra of Infinite Justice*. New Delhi: Penguin Books, 2002.
- Ruskin, John. *Unto This Last and Other Writings*. London: Penguin Books, 1985, 1997.
- "Sacred Rights: Faith Leaders on Tolerance and Respect." *The Millennium World Peace Summit*. Millwood Publishing, 2001.
- Said, Edward W. *Culture and Imperialism*. New York: Random House, Inc., 1993.
- Said, Edward W. *Representations of the Intellectual*. New York: Random House, Inc. 1994.
- Sen, Amartya. *Development as Freedom*. New York: Alfred A. Knopf, 1999.
- Shiva, Vandana. *Biopiracy: The Plunder of Nature and Knowledge*. Boston, Massachusetts: South End Press, 1997.
- Sobel, Dava. *Galileo's Daughter: A Historical Memoir of Science, Faith, and Love*. New York: Penguin Books, 2000.
- Stiglitz, Joseph. *Globalization and Its Discontents*. New York: W. W. Norton and Co., 2002.
- Tarnas, Richard. *The Passion of the Western Mind: Understanding the Ideas that Have Shaped Our World View*. New York: Ballantine Books, 1991.
- World Bank. *Attacking Poverty. World Development Report 2000-2001*. Oxford University Press, 2001.