

GLOBAL WORLD: SYSTEMIC CHANGES, CHALLENGES AND PROFILES OF THE FUTURE

Turns of the century are always times of deep complexity and turmoil. Leaving the past behind, having to face an uncertain future and *building* something new always triggers some spine-tingling and anguished feeling towards the unknown.

In those times of transition, we imagine the future and break away from old habits and practices to adapt our thinking and action to a new way of life¹. Those are always difficult times. In this context, the Chinese proverb according to which *every crisis is an opportunity* comes out as the first challenge to be faced. If *crisis is opportunity, long live the crisis!*, provided that the new opportunities unveiled by these critical times are identified and expanded.

The answer to the question of where the world is heading for is not a simple one, given that we are living in a global, uncertain and complex world. History has already told its end and is following course. It leads us to a change of era that many call a new paradigm, that will undoubtedly bring forward new values and ways of living, understanding and organising the world. The decadence of 20th-century traditional systems and the emergence of new realities and world challenges not only call for a global governance, but for a deep review of our political, ideological, social and economic approaches, as well as for the recognition of a new political subject-object that claims for freedom and equality in a participatory manner and advocates for a sustainable planet.

Currently, the lack of new ideas and the persistence of the obsolete ones², together with the lack of leadership, are distorting the emergence of a new era which, as history tells us, should bring ideas, lines of thought and political action. Liberalism and social democracy are at crisis, while inequality is advancing unopposed and triggers asymmetrical systems that wear democracies and liberties

¹HERNÁNDEZ, Esteban. *El fin de la clase media*. Ed. Clave Intelectual. Madrid, 2014. P. 38. *We must be aware that the struggle between the old and the new takes place, first and foremost, inside ourselves.*

²Paul Krugman calls them *zombie ideas*.

away and impose veiled interests and suffering to the citizens of many States, some of them failed ones.

Tensions between power concentration and fragmentation, along with the nation-state crisis and the international institutional system necessary reform, trigger the discontent in globalisation³, which has surged and expanded through the social networks that give rise to climates of opinion and social mobilisations. The emergence of the so-called populist movements is a consequence of this situation. The Great Recession has increased tensions between the new and the old, between the world that is emerging and the world to which we bid farewell, sweeping away millions of jobs and the incorporation of millions of citizens to the middle classes, a fact that points to a renewal of the class struggle. The divorce not yet solved between the financial economy and the real economy and the increase of inequalities and mistrust put in the open the tensions marking the transition to a new era, termed by many authors as a systemic crisis or value crisis. The geopolitics of coming years⁴ and the construction of a new era will depend on the interactions among these fields.

The World in the Face of Changes

The history of the world's evolution tells us how major scientific discoveries have radically changed the evolution of humanity. *Science* has always been at the root of the main historical changes, especially when it has left the laboratories and become applied. The acceleration of changes is even larger and more evident in the societies in which it grows and evolves. In this sense, as indicated by H. Morgenthau, "belief in science has been one of the main expressions of this way of thinking in the 19th and 20th centuries. This belief in science is one of the intellectual features that distinguish our age from previous periods. In spite of the

³STIGLITZ E., Joseph. *El malestar en la globalización. [Globalization and its Discontents]* Ed. Taurus. Madrid, 2002.

⁴J. SAPIRO, Robert J. 2020 *Un nuevo paradigma. Cómo los retos del futuro cambiarán nuestra forma de vivir y trabajar*. Ediciones Urano, 2009. Tendencias. P. 15. *These changes and their combinations and interactions will have profound effects on the course to be followed by the main societies and their people's daily life, and no nation or person will be able to avoid their consequences.*

differences existing in philosophical, economic and political thought, a certain unity can be observed around the idea that science is able, at least potentially, to solve all human problems...”⁵

The debate between science and philosophy is not new, but in our times, the former, supported by the accelerated emergence of a whole new series of technological advances, has managed to give pre-eminence to the scientific and technical advances that seek to replace the human being’s role, that would be confined in its action to a mere observer-consumer of a reality controlled and directed by a few.

The sense of a deep acceleration of life and events, as well as interdependence and *reductionism* of the space in which the citizen’s existence takes place, lead us to feel that today everything is lived faster and in a more variable and reduced space. Nothing happening thousands of kilometres away is alien to us. Any incident, however small or far away from our environment, will affect us sooner or later.

The new industrial revolution announced by Jeremy Rifkin, the third one, unfolds through new sources of energy and new means of communication, which have changed and will change the way of organising this century’s economic, social and political ecosystem. And all those changes occur in a world in which demographic pressure continues, since the most significant element of population growth is its pace and intensity. We all know that, as pointed out by Jeffrey Sachs in his book *The age of sustainable development*⁶, just as the per capita income, world population changed very little through History, remaining around 1,000 million people over the last centuries until the beginning of the industrial revolution. Similarly to economy, population undergone an exponential growth, which has not yet come to an end, thus going from 1,000 million inhabitants in 1820 to over 7,000 million nowadays. The most significant fact is that the last 1,000 million inhabitants were added to the 6,000 million of 1999 within 12 years.

⁵ MORGENTHAU, Jans p. Essay on international politics.

⁶Columbia University Press, New York.

All forecasts say that we will reach the figure of 8,000 millions around 2025 and surpass 9,000 millions as from 2040. These figures are telling and illustrative enough to consider that demographic pressure is one of the key variables to be considered concerning the limits of natural resources, what Sachs calls *planetary boundaries*.

Planet sustainability will not so much depend on whether the world population rate reaches 9,000 million people, since it might well reach 10,000 million, but on the fact that a demographic expansion stabilisation occurs around mid-century.

1. Science in the Face of the New Century

I believe History is marching towards higher and better levels of progress and well-being, and that these are mainly achieved thanks to new scientific discoveries. In this sense, last century brought us some inventions which actually altered behaviour and social action. Just as in the past, transportation and communication were essential in the generation of changes. It is increasingly evident that a new world is opening up in space. Jacques Attali, in the book he wrote along with Shimon Peres, considers that *space seems to me one of the fields in which world governance can still progress*.⁷ With over 2,500 artificial satellites navigating around the Earth and plans to orbit 1,100 before 2020, space can become a means of protection for the Earth or offer new boundaries to overcome our limits and obtain mineral resources, habitats or energy sources. Thus, the conquest of space could well be the next stage of humankind's control or domination. Attali considers that *space could be the new boundary for humankind*.

Time, movement, travel have ceased to have their own meaning and we all can experience them naturally.

Along with that, the aeronautic revolution itself makes us break the distance barriers, and through airplanes or high-speed trains, places or spaces come extraordinarily closer to us.

⁷*Avec nous, après nous*. Editions Bakerstreet Fayard.

Together with communication and transportation, medicine and biology are other fields in which progress made has been extraordinary. Penicillin and its antibiotic capacities discovered by Alexander Fleming in 1928 entailed the development of medicines and a drastic mortality rate reduction. The 18th of August 1960 was also a memorable date, since the birth-control pill was launched. Its effect on society still persists and, for the first time in history, women could plan their maternity, which allowed their massive incorporation to higher education and the labour market, thus becoming masters of their sexuality and radically changing their role in society.⁸ Today, research on cancer and HIV offers a hope of a future solution for these diseases, to be reached without a doubt in coming decades.

Along with medicine, progress in biology, the knowledge of genetics and the discovery of the DNA structure are milestones. We are only at the beginning of many works linked to these disciplines, and we now know our genetic code just as that of many other living beings, plants and foodstuffs. This progress allows us to protect our health and have knowledge of the structure of organisms. Therefore, it has not only been achieved to extend human beings' longevity, but also to regard our own existence differently as to the *others*.

Former President of Israel, Shimon Peres, considered that the 21st century is *the century of the brain*, since until now our relationship to it had projected outwardly. Plato's allegory of the Cave and its preconceived images fed our thinking and our action for centuries, while, until very recently, the brain was an unknown and hazardous realm. Apart from some attempts by Renaissance medicine to perform trepanations, neurophysiologists only agreed in ascertaining their own limitations when it came to knowing and exploring the complexity of that soft and viscous mass. However, today, thanks to the new three-dimensional radiology techniques, functions and reactions are beginning to be discovered which will alter people's habits and practices. We will become more individual, more

⁸Redacción última 18 agosto 2014

introverted, we will increasingly look inwards and the surrounding reality will be, as Ortega y Gasset would say, our *circumstance*.

All of this confirms, as Shimon Peres said, that *the brain is the most amazing organ in the whole universe and that research on it deserves that no effort be spared*. It has the key for a better control of ourselves and even has many answers to the universal challenges that have escaped human understanding until now. The research of the Brain Research Through Advancing Innovative Neurotechnologies has been aimed at mapping the brain's activity before year 2023. With its 85,000 to 100,000 million neurons, the brain is still not well known.

Technological changes and advancements are interrelated and allow for progress that was unconceivable only a decade ago. Our whole existence and reality are modified by nanotechnology, biotechnology, synthetic biology, 3D printers, the Internet of things, robotics and artificial intelligence.

Along with these advancements, we must not leave out synthetic biology, with its twofold positive and negative impact potential in humanity's development. With his great tenacity, Craig Venter represents confidence in the possibility to unravel human genome and create the first synthetic organism. This *digital life* can reproduce an organism's DNA or alter its shape. Biobricks could be created to give rise to new forms of life. Synbio, this new research field, could have a massive impact in the world, with unimaginable consequences.

Along with the field of transportation, health and education, the invention that has recently transfigured human behaviour the most is linked to information and communication. The move from landline telephone to mobile telephone and from the library-archive to the Internet have been the major technological revolutions that have changed the global citizenship's way of life and perception.

The speed of these changes, since Google was created only 20 years ago, makes it even harder to assess the practical and psychological consequences of these media made available to citizens. It is not only the ability to communicate from anywhere in the planet, neither the fact that information travels instantly and everything is known at once, but the fact that knowledge accumulated, and

collective memory can be immediately and automatically retrieved without any intellectual or physical effort. The whole knowledge of humanity is filed and made available to any citizen without charge. It is the world of big data.

We all have access to huge amounts of information and data without having to be experts or specialists; everything is in full view of everyone and *privacy* is a snobbery of the past. New generations do not have the same issues concerning *intimacy*, they even enjoy showing it to others (Facebook, Twitter, etc.). These changes are those which affect our societies' individual and collective behaviour the most. Along with the enormous advantages offered by technology, the risks and hazards deriving from a lack of national and international regulation of protocols and procedures must be considered.

However, the digital world has not managed either to overcome inequality between societies, and the *digital divide* is significantly widening. Paradoxically, information technologies should assist in breaking many of the oligarchy's differences and advantages, but it has not been the case until now. The gap between the rich and the poor can also be observed in the digital world. There has always been a delay in access to new technologies by our societies' most underprivileged and their peripheries. Inequality is also a constant in digital society. However, there are some glimpses of hope, such as the widespread use of mobile telephones in African countries extending to all economic and social activities. In particular, it has contributed to the *mobile banking* revolution, which, as in Kenya, means a breakthrough in financial transactions.

The *network society* brings other challenges, as evidenced by the US *cyber-spying* crisis and the revelations that Google, Facebook, Yahoo, Microsoft, Apple allowed the FBI and the NSA access to their users' details, thanks to the sophisticated system *Prism*. This awkward situation for the American administration has evidenced the impunity existing.

Eric Sadin denounces that these practices endanger private life and points out that *the cyber-spying that is being implemented anytime, anywhere and under different forms, and sometimes promoted by our own consent, is allowing the*

“*trivialisation of contemporaneous vigilance*”, that is, making real George Orwell’s omen concerning *big brother* made in his book 1984.

Recent discoveries have undoubtedly deepened this anthropologic rupture, particularly the most relevant ones linked to physics. In this discipline, progress has been very considerable, from the *big bang* theory to progress in CERN laboratories concerning the speed of light and the *Higgs boson*, although the discovery by the American Nobel Prize winner Murray Gell-Mann concerning the *elemental particles* theories and *quarks* is worth a special mention. Beyond the smallest there can still be something even more reduced. *Quarks* are the particles hadrons are made of. Thus, quarks and antiquarks and gluons were set forth as the elemental subterranean objects of hadrons’ structures. The most significant part of this description is not the discovery of the simplest, the smallest, but the interactions of the particles among them, which led to the development of the *complexity* theory. In *The quark and the jaguar. Adventures in the simple and the complex*, this theory is explained in an educational manner. For Gell-Mann, the world of *quarks* has a lot to do with jaguar’s circular movement during the night.

This is the great paradox of the 21st century: the *complexity* of reality, which paralyses us in the face of the abyss of the almost infinite network of information and knowledge, and hinders the simplification of realities and facts necessary to implement measures accurately and efficiently in their various dimensions. This is without a doubt a major challenge which society is facing in this start of the century. Thus, Edgar Morin sets *complexity* and *uncertainty* as the essential elements of prospective politics, although these psychological barriers do not prevent him from glimpsing a better future. Political action can change the destination of the improbable and, through on-going efforts, though some may prove unrewarding, create a better world⁹.

Scientific changes and their impact on societies are at the core of the new behaviours and aspirations of the citizens of our world. The sooner we shape the

⁹Où va le monde.

sense of our form of sociability, the quicker we will be able to organise politically, both nationally and internationally.

The New World Governance

It is difficult to reflect on the realities affecting the international community without mentioning the processes of the so-called globalisation. Nobody questions that the term *globalisation* is one of the concepts that are repeated the most currently. Most of the definitions and the most delicate issues go along with the adjective *global* and, logically, the term cannot be left out when dealing with “world governance”.

Globalisation is thus a fact, and it is necessary to highlight, as Guillermo de la Dehesa does, that “it is not a never-ending source of advantages for humanity as some preach, neither is it responsible for all perverse effects existing, as others say”; thus, it can be stated that neither *globalphilia* nor *globalphobia* are wholly justified.

Opposing globalisation is nonsense. It is here and will not go away. But there has been a significant critical debate, particularly in the wake of the recent economic and financial crisis, concerning a dehumanised globalisation. Globalisation has been accused of being the cause for the rise of populist movements. There are mainly protectionist reactions and rejection of free commerce, since the case for a regulated globalisation has not seen the light yet. Interdependence is a fact, connection and dependence among the various world areas are not questioned, and nobody will be able to gate-keep a world with no fences. The new formulas will not give fruit, whether they are real or fake, and will not prevent the expansion of trade, knowledge or information. The exchange of people, products or capital, or ideas cannot be stopped.

No matter how hard the different regimes try to protect their markets or identities, the current world and technology will end up subduing them.

Therefore, it is necessary to regulate globalisation as soon as possible.

Although the so-called economic globalisation does not seem to need a specific regulation, the outcomes and consequences of this unbridled globalisation have triggered an almost widespread rejection to it in most of the countries, including the most advanced ones.

We should clarify the place occupied by globalisation processes in foreign policy governance. Long gone are the days in which *liberals* stated, just as Charles A. Beard said, that *foreign policy is a phase of domestic politics –an inescapable phase, and it is the latter that determinates the former. The foreign policy of a nation is a function of its internal policy, and war and peace depend on it. Thus, internal positions were simply transferred to the international scene. Democracy is peace, autocracy is war...*¹⁰ Today everything has changed. It is international-scale movements that affect and alter national practices. Globalisation has invaded the political space and the major issues affecting the future of human safety have global dimensions: planet warming, energy crisis, food production, the struggle against climate change, international terrorism, emigration, natural catastrophes, pandemics... They not only make up the national policy agenda, but force nation-states to include these issues in their policies, while, until now, they had been relegated in the international policy agenda and only required attention from some international scientific meeting once in a while.

If, as upheld by E. H. Carr, *the League of Nations was an attempt to apply the principles of Lockean liberalism to the building of a machinery of international order*, we are today faced with a new challenge, which is the global solidarity-oriented thought that demands and claims for the creation of a new international governance. It is no longer nation-states that solve major issues and protect international public goods belonging to all humanity, but other kinds of entities and bodies able to respond to these challenges. Therefore, any 21st century political stance must take into consideration all these new realities of the international agenda in order to respond as adequately as possible to the aspirations of each of the States and the citizenship.

¹⁰Morgenthau.

The inadequacy of current organisation structures to deal with changes and challenges seems clear. Therefore, one of the main priorities should be carrying out radically and urgently a deep reform of international institutions. In this sense, it would be advisable that the United Nations should be in the spotlight.

New Gravitational Centres

What is most relevant in this turn of century is the deep transformation undergone by the system. The balance of forces has significantly changed and we are now faced with a world wholly different to that of the 20th century.

This century's first decade has witnessed the emergence and asymmetry of new international policy gravitational centres. The world is no longer ruled from Washington, Moscow, Paris or London. There is no longer one only centre of power, but a series of influence zones that show the multiplicity of actors and agents with relevance in the international community. Long gone are the bipolarity decades when the two superpowers split up the world. Long gone also are the days when the *American hyperpower* believed the end of history had come and its military, political, ideological, cultural and economic supremacy would extend to the whole world. The fall of New York's *World Trade Center* twin towers sufficed for the whole *American hegemony* architecture to collapse and for trust in the power of the empire to be questioned. We then started a new phase in which the most noteworthy element is that no one knows who rules the world. It is no longer the United States of America. Neither is it China, for the time being. International organisations are decaying due to lack of credibility, and economic and financial actors, although they may seem ahead of political decisions, do not have the ability to guarantee their future. In fact all have a little influence, but no one rules alone. Co-responsibility in decision-taking is what makes the international reality even more complex.

Eurocentrism, and even Western influence in world governance, has lost weight and geopolitics have transferred from Europe and the United States to Asia

and the Pacific, although Latin-American and African states demand a new place in the international order, where China has a prominent position.

China's emergence is one of the most remarkable events in the start of the 21st century. Although we lack the historical perspective to assess it, the huge transformation undergone by the Asian giant cannot be questioned. Such changes are still ongoing today, with an uncertain direction, and will undoubtedly be decisive both for the country's evolution and for Asia's and the world's future.

Asia has become –or is becoming again– the centre of economic movements and world geopolitics. Asia and the Pacific-Indian are the most important scenarios of world economy and international relationships at a global level. The irruption of China as a relevant power is being perceived in Asia and its surroundings. There is no shortage of potential conflicts in the region, and it will be necessary to carefully observe Beijing's Asian policy to gauge the trend of its global strategy.

This impressive economic evolution has entailed major social and cultural transformations. Currently in China there is an increasingly large and buoyant middle class, that shows off its purchasing power all over the world. This, together with the single-child phenomenon, who is pampered and who parents wish to reach success in their personal development, help understanding the deep sociological and economic changes involved by this policy. All *single children* will want to be the best in their fields, and their level of aggressiveness in the social scale will be greater than the current one existing in our Western societies.

In this context of economic progress, social development and relative attraction of the so-called *Chinese model*, the country burst into the regional and world scene, but it did so smoothly and harmoniously, so as to avoid offending sensibilities among its neighbours. Those were China's *golden years* in Asia, where it had become an economic power, but, far from encountering suspicion, its attitude surprised and instilled admiration.

Undoubtedly, the successive ups-and-downs of the Beijing exchange reflect the logical impact of the *financial markets'* pressure on the Chinese economy, unable to escape from economic and financial interdependence, just as any other

country in the world. However, this *warning signal* of the Chinese economic system fragilities must not lead to hurried or misguided conclusions on the Asian giant's future potential. In this sense, and in spite of the logical contradictions that will arise in the future in a society immersed in a dynamic of change and progress such as the Chinese one, the advances and potentialities that the Chinese model brings to the international community cannot be ignored.

Latin America has also come up with models and solutions to bypass the *Great Recession*, with varying degrees of success. The Latin-American area has managed to maintain stable growth around 5% per year, but most significantly, it has started to modernise its economy. There has been some slowdown in Latin-American economies owing to multiple factors, but the area's economic potential remains unquestioned. The economies of South America, Central America and the Caribbean must adapt to sustainability policies, particularly Brazil, and review their productive model, excessively linked to the raw-material extractive potential and the *Amazonia El Dorado*. The new relationship between Cuba and the United States also deserves a special mention as a factor of invigoration and economic impulse for the region.

We have the competitive advantage of knowing and respecting our Latin-American partners, and together we could build an economic area of innovative cooperation. There is a shortage of coordinated R&D&I institutions and facilities with central offices in both sides of the Atlantic. An Atlantic-South alliance, similar to that of the Pacific countries, would be the way to implement integral cooperation between our countries.

When speaking about Africa, it is appropriate to recall Federico Mayor Zaragoza's sentence, according to which *the African continent is not a poor continent, but an impoverished one*, and that *Africa is not an old continent, but a young one, dynamic, full of vitality and future promises*. Whether we speak about the future, raw materials, energy, migration movements, terrorist threats or health epidemics, the African continent has many of the keys that will open or close doors in coming decades.

A new relationship to Africa is inescapable. The time of Africa will come, as expressed by thinker Achilles Mbembe¹¹, who defends the need to share a common world and set forth a different political partnership. This approach was analysed in *La Verticale (IPEMED): Africa-Mediterranean-Europe*, and could give sense to this strategic relationship.

New pages of the globalisation could be written after decades of despair in the continent, fostering Africa's takeoff. Winds of optimism are blowing, in spite of obstacles and traumatic realities, and despite the fact that the continent is still unable to feed all its citizens, having unacceptable poverty indexes. However, and in spite of it all, Africa's awakening can be glimpsed, legitimately claiming for a place in the new international order. In spite of dramatic scenarios, the continent has experienced an economic growth over 6% as from 2013. This growth rate is being maintained and the commercial boom is increasing. Educated and entrepreneurial middle classes sum up almost 150 million people, and this number will duplicate within a generation. The takeoff can also be seen in health and education indexes. Also, banking services are rapidly expanding and include new tools such as mobile banking. There are positive signs that invite to hope.

The leading roles of Latin America and Africa enhance the trend of emergence of new gravitational centres. Along with them, another influence centre around the East cannot be ignored. It is therefore not surprising that international conferences, political and diplomatic meetings are no longer held in European or American capital cities but rather in Doha, Dubai, Shanghai, Rio de Janeiro or Pretoria. Gulf countries have become a geopolitical centre between the East and the West, and their air transport networks and financial services attract millions of people, emulating the conferences held in Paris, London, Washington or Berlin in the 19th and 20th centuries. However, the ongoing crisis in the Gulf Cooperation Council concerning Qatar's confrontation with the Council's other members will delay the significant role that could be played by this world area. What is at stake is a model for the Arab family's political development, and the path chosen seems

¹¹MBEMBE, Achilles. *Le temps d'Afrique viendra, j'essaie d'en précipiter l'évènement*.

not to be backed neither by the leaders themselves nor by the citizens. The Near East will keep on seeking to draw its future within a geopolitical layout that does not manage to get away from its existentialist fatalism.

We all want a Near East living in peace and prosperity, but right now it seems hard, given the instability factors existing nowadays.

However, the new influence centres have not avoided the re-emergence of old ghosts. When we all believed that the *Cold War* was behind, attitudes and actions arise that bring us back to those grey years of bipolar confrontation. The Ukraine crisis was the trigger of that step backwards, and we cannot see clearly yet what will the outcome of the conflict be. Foreseeably, Europe and Russia will lose out with this old dynamic, in the face of USA's constant urge for firmness and Chinese discrete silence.

These new influential centres cannot logically ignore the USA's weight and leadership. This will be implemented differently, and although the American President will keep on discussing and claiming the need for a strengthening of American hyperpower, it will have to adapt to current times and new power centres. This does not mean that the EU should not consider the serious and rigorous negotiation of the Transatlantic Trade and Investment Partnership (TTIP) a priority. Its execution would be a guarantee to successfully uphold Europeans' future commercial interests in an increasingly competitive world that will need standards and patents where the European seal with its standards and criteria can be maintained.

However, mechanisms for international governance organisation, such as G8 and G20, have not been useful to solve specific crises, neither in the political and military fields nor in the economic and financial fields. And above all, they have proved unable to make progress towards a new international order. Until now, no foundational meeting has been held and a new international order for the 21st century has not been set forth, as was *Bretton Woods* for the 20th century. The United Nations long-awaited reform, and particularly its Security Council, remains stalled and the future configuration is still up in the air for the time being. The

designation of Antonio Guterres as the new United Nations Secretary-General opens a window of hope that this process can be resumed more decisively.

In these circumstances, it has been evidenced that the world is in constant change and that there are international public goods, global challenges and an urgent need to adapt the governance structure to these new realities. It is obvious that, for the time being, only major actors or regional organisations can more or less organise their *modus vivendi*, pending a conflagration of dimensions difficult to foresee or some other world event that wakes them up from an irresponsible sleepwalking.