Humanity on the Threshold A Critical Enquiry

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For quite some time already, there has been a debate on humanity reaching an evolutionary threshold. This is becoming a hot topic because of the exciting aspects it covers. To start with – humanity reaching a new threshold - has a significant dose of drama: it is important, it is challenging and it holds some danger should we fail to be up to it. Secondly, it makes a great subject for passionate debates because of the opposition it generates from different people. There are several reasons why it is so controversial: its own nature is the first cause of quarrel: while for some people this is mostly a cultural phenomenon, for others it goes beyond than that as it has the potential to affect us as a species. Most of the arguments about this issue end without any enlightenment at all because of the normative aspects mixed in; namely, the discussion often is just an excuse to postulate personal preferences. Yet, if humanity is truly approaching a threshold, then it is paramount to know more about it and the defiance it may pose to us. The following pages will be focused to try to determine whether if we are actually attaining such an event or not.

Of course, the notion of threshold is rather transcendental in this context. Not just because of all the feelings it conveys, but mostly because of the several relevant features it encloses. Foremost, it signals a point of irreversible change, hence it will create a before and, as you would expect, an afterwards. Even more, the alteration has to be a deep, ontological change, otherwise it could be reversed. Therefore, a threshold is a moment of profound and long-lasting implications with nothing banal or superficial in it. The awareness of this fact, to which is not alien all the mentioned normative loading, provokes a certain sense of momentum that burrs the analysis and hardens the reflection.

However, if there has to be any serious attempt to determine if we are approaching such a threshold, the first step should be the assessment of the circumstances that make this historical moment so relevant: namely the challenges that will put humanity to the test.

This is, in itself, a problematic endeavour. Any criterion used to discern the true "challengeness" of the selected trends is bound to be problematic and controversial. Acknowledged that, this introduction will use an empirical perspective to depart in this critical query. The classification could prove to be a second endless debate, but for the purpose of this project the challenges will be grouped in the following categories:

- Population
- Economy
- Environment
- Society
- Technology
- Culture
- Geopolitics

It has to be noted that the selection is also the result of available indicators, or, to be more precise, the lack of them at the global level.

Population

The world's population has risen from 4.068,1 mil-

lion people in 1975 to 6.225 in 2002, that is an increase of 53,02% in 27 years. The projections for 2015 are of 7.197,2 million people, that means a 15,61% increase in relation to the population of 2002. This would confirm the deceleration of the progression that we are beginning to see now. However, we cannot forget that the World population in 1950 was of 2.555 millions of people, we have more than doubled the populace on the Earth in 50 years, and it is likely that we will triple it in 25 years. (HDR 2004 and VS 2003).

These are the average figures. Nevertheless, there is an acute distinction in the demographic trends depending on the wealth of the area examined. Thus, the behaviour of the richer countries (for the purpose of comparison, here it will be used the data from OECD countries as an indicator of those richer countries) is remarkably different of that of the developing ones.

		OECD Countries	Developing countries
Population* 2002		1.148,1	4.936,4
% Total population 2002		18,4	79,3
Life expectancy 2002		77,1	64,6
Growth rate	1975-2002	0,8	1,9
	2002-2015	0,5	1,3
Urban Population** 2002		75,7	41,4
People over 65**	2002	13,3	5,2
	2015	16,0	6,4
People under 15**	2002	20,2	32,2
	2015	17,9	28,2

Source: HDR 2004
* In million people
** Percentage from total population

The figures show that in the OECD countries there is an older minority that lives longer. The bulk of the older people is more concentrated in cities and their numbers grow at a less rate. On the other side, in developing countries there are a huge proportion of people that are very young but that will live less time and is still living mostly in rural areas. The gap is most likely to grow in the future. In 2015, the proportion of urban citizens in OECD countries will be of 79 %; and 16 % of its total population will be over 65 years old and only 17,9 % will be under 15. In the developing countries the urban dwellers will raise to 48,6 %, their old cohort will still be small 6,4%, but its young cohort will lessen to 28,2. The projections for 2015 show that ageing trend in OECD countries will grow even more, while the population in developing countries will still be predominantly young. The scenario seems clear, the rich countries will become older, more concentrated on cities and, with all probability, will be more dependant on the developing countries resources and, specially its work force.

The real importance of this distinction lies on the different lifestyles these two groups have, theses distinction will be more evident in the following challenges

Economy

The World Gross Product (WGP) has climbed from 21,1 Billions of US$ in 1975 to 48 in 2002, which means a 56,04 % augment. During this period the WGP has grown at a yearly ratio of 1,3%; a deceleration has been perceived since the 90s and the percentage would be of 1,2 for that period. Yet the progression pace has been different in distinct parts of the world, thus while the OECD countries have grown at an average 2,0 % yearly increase (1,7 % since 1990), the group of developing countries has managed to augment at a 2,3% per year, and dissimilarly from the rich countries has managed to reach a 2,8 % since the nineties. These are good news as it would indicate that the gap between wealthy and poor countries would be closing. However, it has to be noted that some of the most notorious increases have been developed over fragile basis as the end of the nineties crisis in South East Asia showed. Not only that, it cannot be forgotten the respective share of each region in the total amount of WGP.

Year 2002	World	OECD Countries	Developing countries
Gross Interior Product*	31.972,2	26.280,9	6.170,6
% From World GIP	100,0	82,2	19,3
GIP Per Capita**	7.804,0	24.904,0	4.054,0

Source: HDR 2004

*In billions of US$

** Measured in Parity Purchase Power US$ [1]

With this second block of data, it becomes evident that the real challenge is not the different population but the enormous economic gap between the wealthy minority and the rest of World. It can be argued that many countries are doing better than the developing ones, but it is also true that the group of less developed countries (about 600 million people) have a GIP per capita of just 1.307 PPP US$. The truth is that the distance between the affluence of the 20% of the world inhabitant and the rest of them is gigantic [2]. The acceleration in the growth of the developing countries cannot hide that the unbalance will not be simply corrected by "developing" the poor countries, as the following challenges will demonstrate.

Environment

The carrying capacity of the planet is not a completely fixed limit. So far, humanity has been capable to break previous boundaries and attain new levels of comfort and prosperity. Yet these improvements have been uneven in different parts of the world and at distinctive moments in history. However, some indications point that, as a species, we may be reaching a point in which we might jeopardize our own survival:

- Grain production: since 1996 the World grain production per capita has decreased from 326 kg/person to 294 kg/person in 2002. Even more, the total grain production is also decreasing from 1998 with 1.903 Millions of Tonnes to 1.833 in 2002. This is just a signal of an incoming major problem for humanity: how to feed its growing **population (VS 2003)?**
- Water deficit: during the nineties the estimated World Water deficit was of 163.600 Millions water m3 per year. This, in turn is causing a severe depletion of the subterranean water reserves. At present time only 56% of the World inhabitants has access to potable water. Not only that, right now 505 million people oscillate between stress and water shortage, but it is estimated that in 2050 this figure will rise to a minimum of 2.400 or to a maximum of 3.400 million people. Here it is not taken into consideration the fact that there is a sustained growth in the pollution of subterranean waters that could intensify the water deficit even more (Source: SW 2000).
- World temperature: the average global temperature has risen from 13,87 Centigrade degrees in 1950 to 14,52 in 2002[3](VS 2003) [3].
- Toxic food: the number of infections due to poisonous food has been growing during the nineties. Only in the industrialised world they affect the 30% of the total citizenship, but they are also the responsible of the death of over 3 millions children due to diarrhoea in the developing countries. (VS 2002).

If these trends are indicators that humanity may be stretching Earth's carrying capacity to its very limits is not totally proved yet. Nevertheless, if we accept the mere possibility that they may be so, then the examination of some of the following data takes a new perspective.

For instance, the energy use: the Electricity World consumption in 1980 was of 1.573 kilowatts/hour per capita; in 2001 it was of 2.361 (that is an increase of more than 50% in 20 years). However, once more the true implications of these figures are visible when we differentiate the expenditure in OECD and developing countries:

	OECD Countries	Developing countries
Per capita usage 1980*	5.761	388
Per capita usage 2001*	8.503	1.035
% Growth	47,59	166,75
CO2 emissions** 2002	51,0	36,9

Source: HDR 2004
*In kilowatts/hour
**Percentage from World's total emissions

These figures reveal the core problem: if just a fraction of the total World's inhabitants is responsible of the present biosphere deterioration, what will happen when the rest of the world improve his living conditions? For how long can the World sustain an increase in energy consumption of 2,5% every year?

More important, on which moral standpoint can anybody tell the developing countries not to use the energy they need in order to pursue this legitimate aspirations?

Of course, this could be easily resolved if humanity would not be surpassing Earth Carrying capacity. The solution would be simple: to let enjoy everybody the same level of comfort. So far, humanity's technical capacity has allowed it to overcome all previous limitations. If this time technology cannot provide the solution, then the circumstances may provoke a juncture in which necessity will force an agreement that might not satisfy many aspirations and that will deceive many claims of fairness.

Society

This is one of the challenges in which the empirical data proves to be more misleading; the social reality can be quite elusive for figures to capture it. However, the examination of a couple of issues reveals that the disparity between rich and poor countries permeates through all the diverse aspects of its life.

Education, for instance, reveal that the gap is also present here:

Years 1994 - 1995	Primary Schooling ratio*		Secondary Schooling ratio*		Public Education expenditure** (1992-1994)
	Men	Women	Men	Women	
World	90	82	61	54	5,1
Developing countries	89	79	53	43	3,6
Industrial countries***	95	96	93	94	5,4

Source: WCR 1998
* Percentage from total population
** Percentage from GDP
*** The World Culture Report does not have the category of OECD countries, instead uses the Industrial ones label.

The first thing that is worth noting is that the data used is ten years old. It is difficult to say if, for instance, the expenditure in public education has improved or not. The data in this regard from HDR 2004 although more recent is inconclusive as it lacks data from many countries; however the available information suggests that expenditure has stagnated from 1990 to 2001. If this data could be confirmed it would indicate a reduction in the education investment per capita as the population has certainly increased. In any case, and focusing in the concrete data on the table, it could make someone think that the distance between some ratios in not so big, the public expenditure for instance. Yet it can not be overlooked the respective wealth in each group and the total population: a 5,6% of an Industrial country GDP means a lot more of money per each student than the 3,6 of a developing country. The bottom line here is that the less a country can invest in education the less chances of improving its conditions. Therefore, the gap in education implies an elongation, if not a perpetuation of the present inequalities.

A second field worth revising here is the issue of the treatment of women.

Year 2000	Women's literacy		Women employed***
	Youth*	Total**	
Developing countries	80,5	66,0	55,8
Industrial countries	100	100	51,1

Source: WCR 2000

* Percentage from total population over 15 years old.

** Percentage from total population between 15 and 24 years old.

*** Percentage from total population

Here it has to be noted that there are no real measurements of women, or general literacy in Industrial countries, since is schooling is compulsory for everybody it is simply assumed that there are no illiterate people. What is more interesting is to realise that there is one thing than unites rich and poor countries is the limited access of women to the labour market. In this regard, there is nothing for the developing countries to be proud of; women are welcomed as a labour force as long as they are cheaper, as it happens everywhere. So patriarchy seems to be a truly global phenomenon.

Technology

Technology is, for many persons, the key issue. It is both the motor of the wave of change and the panacea for our present and future problems. But it is also reflects acutely the deep unbalance it has been referred so far. The indicators here just give a pale impression of the true situation, it will be examined the advancement in phone lines, cellular phones and Internet Hosts:

		1990	2001
Phone lines per 1000 persons	World	98	169
	OECD	392	523
	Developing Countries	21	78
Cellular phones per 1000 persons	World	2	153
	OECD	10	539
	Developing Countries	-*	75
Internet users per 1000 persons	World	-*	79,6
	OECD	2,8	332
	Developing Countries	-*	26,5

Source: HDR 2004
* No available data

The uneven spreading of technology replicates previous inequalities: it reflects the economic disparity and hence the investment capacity; but it also reflects the performance on training. Since most of the developing countries lack the budget capacity and enough knowledge capital to build up their own technology according to their own needs and priorities, they are totally dependant on foreign investment. But foreign investment does only takes place when and where there is a high enough profit expectation. In this regard, the intensive promotion that cellular phones have experienced cannot only be explained in terms of a comparative cheaper option in front to traditional phone line in places that lack the investment capacity to deploy a network of phone lines. It is also the consequence of a strategy aimed to widen the potential market of users. Internet, on the other hand, advancement is slowed down by the hardware costs and the existing phone lines accessibility. In any case, the dissemination of both technologies is a good example of the deep cultural issues involved: Internet forces any new user to undergo a quite deep immersion in a written English culture which may be an important obstacle for many people (or simply an "disincentiver"), but cellular phones connect nicely in those areas where oral culture and tradition is still strong. However, there are other initiatives that pose an alternative to this trend, in India there exist a project called *Simputer* that aims to create a simple, cheap and multilingual computer conceived so at to surpass the digital divide in poor countries [5].

Nonetheless, if technology is really the panacea of humanity present problems, it looks like it will solve some people difficulties first.

Culture

If it has been difficult to find indicators that could provide some measurement of the Society challenge, for culture it has been an exercise far more complicated and, ultimately,

even more deceptive.

The first predicament relates to the purpose itself, how can culture or cultural performance be measured? How can any culture be measured? If we accept that cultures are essentially life styles – individual and collective - we will have to conclude that any kind of measurement will provide a limited reflection of what that culture truly is. Not only that, most of the indicators that we could find in this field do measure items whose relevance is strongly rooted in one cultural tradition: the Western one. To measure the number of newspapers, radio stations or TV stations in some places could be better used as indications of Western culture penetration. However, and just for the sake of some comparison exercise, the figures are as follow:

		1980	1998
Newspapers*	World	77	78
	Industrial Countries	281	218
	Developing Countries	35	40
Radio sets**	World	274	416
	Industrial Countries	854	1.046
	Developing Countries	117	244
TV sets**	World	105	225
	Industrial Countries	438	496
	Developing Countries	25	153

Source: WCR 2000

*Daily printing per 1.000 persons.

**Per 1.000 persons.

According to these results the developing countries are also doing poorly in culture. However, a more accurate conclusion could be that they are doing poorly in some Western cultural expressions. The case of Television programming production provides some insight into the real situation in this field. Quite frequently, a successful programme in the US television becomes a major hit show at the planetary level examples like *The A-Team, Alias, Bay Watch, The X Files or CSI* that are widely popular through all the globe represent a major obstacle to local production in poor countries. Most of these show cost a minimum of 1 US$ million per episode, this cost is covered by selling the series to one of the major American networks. Later on, the series will be resold to other channels through the entire world, but there is a cost criterion. Typically the first targets will be European and other rich countries networks where the series are sold for 200.000 US$ each episode (that is net profit for the pro-

ducer); later on the show is subsequently sold to other countries in a decreasing scale according to their wealth, thus Malaysia may pay 70.000 US$ for the same episode and Bangladesh no more than 25.000 US$, at the bottom, the last buyers get the show for ridicule low prices. As a matter of fact, these prices can be so low that they are cheaper than the cost of producing their own series locally, as a result of this local television production is almost non-existing in many poor countries. To make this even worse, the strategy of the seller is to offer not just a show but a package that may include old series like *Growing pains*, *Cheers*, or *Seinfield* with a prearranged sponsorship (frequently by big transnationals that refuse to sponsor local shows). This is not only hurting severely the local cultural industry (that cannot hope to compete with those shows) but is also one of the reasons why determinate cultural stereotypes are becoming so widespread all over the planet and American icons dominate the collective imaginary in so many places [5].

Geopolitics

The last decades of the 20th Century have been quite troublesome. After a relatively peaceful period after WWII during the fifties and the sixties, the Cold War imposed its logic and lead to an escalation in the number of conflicts from the seventies on. The nineties witnessed the collapse of the Soviet block, the end of the Cold War and the peak in warfare (51 conflicts in 1992), since then, the progression has been negative with a lesser number of wars as it can be seen in the next table.

Year	Wars
1950	12
1960	10
1970	30
1980	36
1990	48
2000	35

Source: VS 2002

This trend seems to be reflected also in the decreasing number of soldiers in the World. However, it has to be noted that many countries are moving towards smaller armies but more professional and better equipped, that is, with equivalent or higher firepower. The exceptions to this trend are the poorest countries that still have to rely in manpower for combat. In this sense, and despite the data is incomplete the percentage of public expenditure that the nations devote to military and defence seems to be shrinking too all over the world apart from significant exceptions that are usually related to situations of internal conflict.

	Total military forces	
Year 2002	Thousands	Index*
World	19.045	69
OECD	5.092	70
Developing countries	14.203	91
Less developed countries	2.033	174

* (Number of soldier in 1985=100). Source HDR 2004

However, the situation is still complicated, the World has not fully adapted from a bipolar to a unipolar system and the USA has to adjust to its new role as the sole hyperpower in the planet. There is a need of an international authority that could mediate and negotiate between contending parts, but that could also intervene and enforce rules, sentences and agreements when need be and, clearly, the US cannot act – at the same time- as policeman, judge and part in international conflicts. That should be the task of the UN. But the international body has a problem of its own: its severe trust deficit due to, among other things, its deceiving performance. But if the UN has a distrust problem, the USA has legitimacy one; it can hardly lead the international community when it refuses to comply with international regulations.[6] On top of that, a new factor has emerged to add even more strain to the international community: global terrorism.

If it would not be because is tragic it would be ironic that, after all the years talking about globalisation, it is terrorism that has been one of the first social phenomena to master global dynamics. There were signs before but only after September 11 it became shockingly clear. Terror had attained a new level, it could no longer be contained to defined territories and it could reach anybody, everywhere regardless of its condition, circumstance or performance. It is the absolute arbitrariness and the total randomness. Not only that, the religious factor obscures the issue even more; the fact that many terrorists claim a Muslim allegiance (if not a legitimation) for their acts have led many to view in this terrorism the much-publicised Clash of Civilizations. Although the religious factor cannot be neglected, it cannot also be the main driver here, if nothing else, the previous points in this introduction should be proof that there are huge and unfair inequalities in the present World. Of course, it can be argued that a terrorist does not need a real claim to hold a grudge; but it is also true that it will a lot easier for that terrorist to obtain support if there is an objective injustice over which he can build his discourse.

It is too simplistic to blame a religions or a culture for the doings of their people, to begin with no religion or culture is free of intolerance and, in the second place, it would provoke that the real causes would be overlooked. Terrorism and the raise in religious fundamentalism can be seen as different reactions to a similar angst. The challenge here is to show that there are other options beyond faithful acceptance or violent retaliation. But to do it a change of focus is needed and, in this regard, media are a problem. It can be argued if terrorism is the biggest challenge humanity is facing, but it is the one that gets more media coverage. There is a delib-

erate effort to amplify the perception of risk associated to terrorism for reasons that will not be discussed here. In other words, there is a premeditated attempt to install the debate in the realm of feelings, into today's *zeitgeist*, rather than that of arguments to further complicate a proper approach to it. Once an issue becomes a hot media topic is extremely tricky to avoid resorting to slogans that can be transformed into headlines.

But these are not the times to look for simple recipes to complex issues. US's war on terror is a good example of this. Al-Qa'ida is a new kind of organization that is structured in the form of a network of nodes with a high degree of independence, yet capable of coordinated action. The purpose of this structure is clear: it is harder to be eliminated and, certainly, not by a regular army deploying a traditional war. The chosen US strategy will not be successful, most likely it may foster the opposite, as the Iraq example proves: "the Iraq war may have exacerbated the problem of international terrorism by creating a new frontline in Iraq and fuelling Arab and Islamic resentment" (SIPRI 2004: 3). Yet there is a more insidious effect, to fight terror there has been a significant cutback in political freedoms in many developed countries, to the point that some historical achievements like press liberty and *habeas corpus* are seriously compromised in several countries. This is provoking a paradox: "humans beings cannot be made free, let alone happy, by placing them in a protective security cage. The already very difficult task of achieving democratic transformation in non-Western societies will not be helped if the West is seen as slowly consuming its own stock of inherited liberties, while trying to impose freedom (a contradiction in terms) on others" (SIPRI, 2004, Introduction).

Concluding Remarks

In many senses the data collected here is unsatisfactory for the purposes of this introduction they offer fragmented bits of information that do not really help to make the big picture. And yet, there is one conclusion that could be reasonably derived from the previous inputs: that the main challenge comes from the present unequal situation in which a minority of the World's population possesses much of its resources. This unbalance provokes all sorts of tensions in our political, economic and cultural systems but also in Earth natural cycles. Even more, many available indicators suggest that this inequity cannot be supported for much longer. However, a deeper reflection suggest that maybe the real test lies in our capacity to deal with these issues using an approach that is better suited to manage complexity and uncertainty. The World of the 21st Century is different, the stakes are higher and so the consequences of our failures; therefore we cannot longer pretend to resort to old recipes when they are giving wide evidence of exhaustion.

Then again, the question remains even more defiant, is humanity approaching a threshold?

The quantitative approach can reach so far; there is need of another kind of insight. That is why in the following chapters some reputed futurists will provide alternative analysis in the hope that they will offer more enlightenment on the debating question.

Ziauddin Sardar, the editor of the journal *Futures*, in his paper "A Garden of Humanities", explores the foundations of identity in our societies, so far. Which agents are impacting those foundations and what are the possible consequences of present developments. Sardar shows his card from the beginning presenting his preferred view, the world as a garden in which diverse identities can flourish.

Sohail Inayatullah, professor at the Tamkang University presents the basis to develop true and deep multiculturalism.

Walter Truett Anderson, president of the World Academy of Art And Science, in his paper, The Era of Evolutionary Governance, explores the developments that are substantially altering the mechanisms that have governed our evolution so far. His conclusion is that our most pressing need is to create the governance tools that could give us some control in this historical, evolutionary period.

The last contribution connects very nicely with that of Anderson. Jan Huston in his paper,

Which Way Is Up? is a review of the stakes at play now. His paper may be unpleasant to read for some as he forces the reader to take into account some tough alternatives, but the arguments he presents are compelling enough to acknowledge that we cannot afford to ignore them.

At this point, only one task remains the analysis of the notion of threshold in itself. This is not a banal question; on the contrary, it is a most relevant enquiry. If one thing has become clear after the post-modern wave is that they way questions are framed do influence the answers. But this will be open for the moment.

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Notes

1. The Parity Purchase Power is a an indicator that allows to correcting the prices divergences in different places, it aims to measure the equivalent cost of distinct items in diverse countries.
2. Right now, the 1% richest group of World's population concentrates the same wealth than that of the 57% poorest segment (HDR 2004)
3. Here it has to be noted that there is considerable debate about whether this increase is due mostly to human action (mostly greenhouse gases) or if there is also some sort of cyclical phenomena of global heating and cooling at play. In any case, if the temperatures are rising, regardless of its causes, it has serious implications for us in terms of its consequences in crops, farming, rising sea level, human's settlements and economic activity.
4. There is more information at http://www.simputer.org/
5. All this is explained in greater detail in Ziauddin Sardar and Merryl Wyn Davies, *Why do People Hate America?*, Icon Books, London, 2002
6. Here it has to be noted that America and Somalia are the only countries have ratified just one of the seven treaties included in the UN Millennium Declaration. Not only that, alone in 2004, the USA is the country that has voted more times (11) again the 13 resolutions about disarmament presented in the UN General Assembly as it has done systematically in the past.

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VS: *Vital Signs 2002 – 2003*. Worldwatch Institute http://www.worldwatch.org/
WCR: *World Culture Report 1998-2000*. UNESCO