

Past

1. Does history follow some direction?
 - Does the number of isolated societies tend to be minimized? (Societies more connected)
 - Is nature progressively 'humanized' and eventually exterminated? Is there a globalization of environmental degradation and mass extinction?
 - Tend all political systems to be democratized and protect freedoms?
 - Do societies become (socially and technologically) more complex (social structures develop more components and those components are increasingly interdependent)?
 - Is there a tendency for societies to become more pacific (decline of violence)?
 - Do all societies eventually experience material and technological progress?
2. Have the big historical events been accidental or necessary?
 - The emergence of industrial capitalism and of modern economic growth (sustained increase in per capita income: the industrial revolution and the 'Rise of the West')
 - The demographic transition (fall of the mortality rate while the fertility rate keeps high and an eventual fall of the fertility rate)
 - The scientific revolution (the creation of the modern, experimental, technological science)
 - The waves of democratization (19th century, inter-war Europe, post-1945 wave, end of 20th century) and the emergence of modern politics
 - The rise of those in subordinate positions against the privileged: workers against employers (labour movement), women against men (feminism), slaves against masters (abolition), the mass against the elite (socialism), subjects against rulers (the rule of law)...
3. Almost every place has had its moment of glory/leadership. Is that (a continuous renewal in leadership) necessarily so?
 - Human revolution (origin of humanity): Africa
 - Agrarian revolution and urban revolution: Middle East
 - Industrial and scientific revolution: Europe (historical enigmas: why the puzzling rise of Europe to global power and the decline of China?)
 - Space revolution (arrival to the Moon) and digital revolution: America
 - In Europe, Italian city-states produced the Renaissance; Portugal and Spain led the process of global conquest; Holland created corporations and financial markets of a modern type; England developed the industrial revolution; the French Revolution established the basis of political rights and civil freedoms; the Enlightenment was also centered in France...
4. Is globalization (the network society) a recent development or has it existed for millennia?
5. Is a lesson from the past that all expanding societies cause an environmental deterioration that eventually leads to the society's collapse?
6. Is a lesson from the past that all expanding societies cause, and rely on, social inequality?
7. Is a lesson from the past that societies either expand or enter into conflict? [The Little Ice Age in the 17th century coincided with a period of global crisis: demographic collapse, social disorders, political revolutions, destabilized states, disordered economies... The First World War and its aftermath also coincided with episodes of severe political disruption (communist revolution, emergence of fascism) that eventually led to a second global military conflict.]

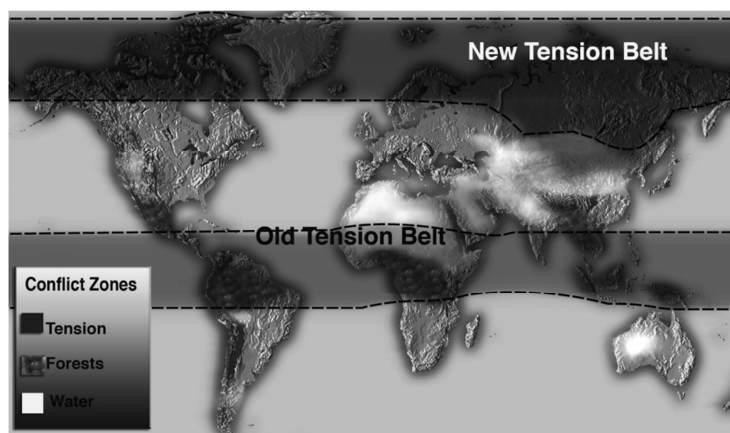
Present

8. Are we temporarily fortunate? Poverty has been and is still the rule, the normal state of affairs. Why? Forever?

<https://www.dosomething.org/us/facts/11-facts-about-global-poverty#>

9. Is in the nature of globalization to be an asymmetric process, in which benefits and costs are not evenly or fairly distributed?
10. Is globalization a political project or an inevitable historical process?
11. How replicable by the rest of societies are the beneficial outcomes achieved by some societies (prosperity and material wealth, social stability, democracy and accountable rulers, scientific and technological progress, social equality)?
12. How different are the conditions and processes to achieve some desirable social outcome from the conditions and processes necessary to preserve the outcome? In particular, is igniting socio-economic development too different from maintaining and expanding it?
13. To what extent do national policies consolidate or resist the globalization process? [Rodrik's trilemma]

14. The tension belts (James Lee, 2009, *Climate Change and Armed Conflict: Hot and Cold Wars*). They are the manifestation of the view that climate change will reinforce political conflict. Climate change will produce scarcity in some regions and abundance in others; induce the massive displacements of people; generate new sovereignty claims and border disputes...



- Equatorial tension belt. Involves mainly developing countries. Here climate change will lead to hot wars, as it will make the regions hotter and drier (increasing deforestation and worsening water shortages).
- Polar tension belt. Involves developed countries. Climate change will make this region more valuable (it will attract population, create new opportunities for resource exploitation and induce states to fight for its control). As distinguished from the hot wars in the equatorial belt, the duration of the cold wars in the polar belt is more likely to be short-term, motivated by opportunity (not desperation) and relative to specific (rather than general) resources.

15. What do we really know about large economies?

- The Lucas paradox: investment funds do not appear to flow from richer to poorer regions (where investment returns are potentially higher), as predicted by convergence hypotheses.
- Kuznet's curve and Kuznet's waves: economic inequality oscillates with economic development. [The original Kuznet's curve held that inequality increases in the initial phases of economic development and decreases after some development threshold.]
- Environmental Kuznet's curve: is it true that, initially, development deteriorates the environment and, eventually, restores it?
- Moravec's paradox: it seems easier for machines to replicate certain sophisticated intellectual activities (mathematical calculations, for instance) but not simple sensorymotor activities (recognize objects, walk, seize objects). An economic implication of this paradox is that automatization has replaced human labour in production activities that are predictable (can be algorithmically performed), like manual work in a factory or administrative tasks, and, as a result, has segmented workers into two categories: (i) those handling innovative, creative, hard to algorithmically replicate intellectual activities (teach, do research, manage a firm, compose music, make political decisions), which tend to earn high incomes; and (ii)

those doing comparatively unskilled non-intellectual jobs (guard labour, shop assistant, personal services, housekeeping).

- Rodrik's trilemma. The policies chosen by national governments must either be consistent with a globalized economy or satisfy the demands of the national population but not both (in general, integration in the world economy requires the adoption of policies that are unpopular and will not be supported by a majority of the citizens).
 - Lee's hypothesis. Are nondemocratic governments more capable to deliver economic development?
 - Jevons paradox. Technological improvements that reduce the need for some resource may eventually increase the use of that resource: new technologies aiming at reducing the consumption of some resource may backfire and generate the opposite result.
 - Easterlin paradox. More wealth seems to lead to more happiness, but an increase in wealth does not appear to be correlated with an increase in happiness.
 - The tragedy of the commons. Common resources that are freely available tend to be overexploited.
 - 80/20 rule. In many cases approximately 80% of the effects (outcomes) stems from approximately 20% of the causes (inputs). [In many economies, a small percentage of the population owns a large fraction of the total wealth; 5% of the web sites attracts some 75% of visits; 1% of the movies accounts for 80% of the box office.]
16. The feminization of the labour force in the last decades have contributed to make the impact of technological unemployment and globalization bearable. For how long?
17. Globalization has also transformed the characteristics of work and employment: labour markets are increasingly segmented (between high-skilled and low-skilled workers), which contributes to income inequality, and, in general, jobs tend to be temporal rather than permanent (which increases social instability and makes the professional career and job security things of the past that are not likely to come back).
18. How much power can big corporations obtain during the current digital revolution? How disruptive can the big four be? [By market capitalization, the five largest companies in 2006 were Exxon Mobil (\$540 b, in 2017 dollars), General Electric (463), Microsoft (355), Citigroup (331) and Bank of America (290). In April 2017: Apple (794), Alphabet (= Google, 593), Microsoft (506), Amazon (429), Facebook (414). In contradistinction to industrial companies, the big companies of the digital era concretate the economic benefits in a few hands: General Motors generated a value of \$0.23 million per employee; Facebook, \$20.5 million; see Scott Galloway, 2017, *The four: The hidden DNA of Amazon, Apple, Facebook, and Google*.]
<https://www.nytimes.com/2017/04/22/opinion/sunday/is-it-time-to-break-up-google.html>
- Amazon. A company growing at an annual rate of 20%. Jeff Bezos, currently the third wealthiest person in the world, is likely to become soon the number one.
 - Apple. It has become the most profitable company in history by achieving the impossible: selling at a very high price a low-cost product. Apple's cash on hand is at a par with Denmark's GDP.
 - Facebook. In terms of adoption and usage, the 1.2 billion people interacting daily with Facebook make Facebook the most successful creation in history.
 - Google. Google is the most powerful source of knowledge and also gains from the impossible: it is a product that becomes more valuable, not less, with use.
19. Is the global impact of criminal activity sufficiently under control or tolerable? [This activity seems to account for around 5% of world GDP.]
20. There is an ongoing global process of urbanization. Currently, more than 50% of the world population lives in cities and this proportion is increasing. Is this process sustainable? Will the world become more or less urbanized? Is global urbanization another big bubble?

21. Is globalization consolidating the North-South divide (the rich-poor dichotomy, the centre-periphery division) created by the Great Divergence? Since the development of the rich countries depend on an increasing use of resources, is it not in the interest of the richer countries to keep the poorer countries poor and weak, so that it will be easier to take from them the resources the rich countries need?
22. What is to be expected from the rise of China? Since China is back, how will the US relinquish/share its global hegemonic position?
23. Why are not all countries developed yet? Why does poverty persist in some many places?
24. Are the current population levels sustainable? What is the population limit that the planet can sustain?
25. Modern national economies seem to reinforce three serious economic problems: technological unemployment, growing wealth/income inequality, and rising debt. Is viable a global economy suffering from these problems but that does not receive the support of a global government? [So far national welfare states appear to contain the effects of these three problems. Will they be strong enough to contain the problems at a global scale?]
26. Is globalization ultimately a zero-sum game? [Political situations tend to be zero-sum: what a group gains another one must lose. The standard view of economic situations is that there is always room for win-win solution. If globalization is a political project, the political zero-sum logic perhaps will prevail.]

Future

27. Will the big historical events revert?
 - Is a Great Convergence (of the Rest towards the West) to follow the Great Divergence?
 - Is globalization just a temporary phase to be followed by a deglobalization phase?
 - Must the population boom created by the demographic transition be continued by a global population bust (Malthusian thesis of unsustainable overpopulation)?
 - Why does religion and non-scientific beliefs persist despite the overwhelming impact of scientific and technological progress in modern societies?
 - Will democratization be just a failed experiment and autocracy will finally prevail?
 - Is a big reactionary, revanchist response by the privileged to be expected? ['The wolves rule, not the sheep.']
 - Is global war the necessary outcome of the unfeasibility of continued global growth?
28. Is everything a bubble (no matter how far they develop, all social processes collapse and come to an end: population expansion, wealth increase, technological progress, material well-being)?
29. The economic dimension
 - Is capitalism inherently unstable, self-destructive, or at least prone to crisis?
 - Is unregulated global free enterprise socially, culturally and ecologically destructive?
 - How dangerous is the excessive financialization of economic activity?
 - Is global capitalism just a gigantic Ponzi scheme? (Mitch Feierstein, 2012, *Planet Ponzi*) [A Ponzi scheme is an investment strategy in which an investor makes unproductive use of funds provided by other investors and the returns paid to those investors come from funds contributed by new investors.]
 - Must sustained economic growth necessarily be accompanied by increasing economic inequality?

30. The ecological dimension

- Does the development and survival of capitalism (and technological advanced societies) ultimately depend on the exhaustion of natural resources and the overexploitation of the ecological services (processes that purify water, break down pollutants, recycle nutrients)?
- Is economic growth only possible by destroying natural capital? Is then environmental collapse the final destination of global capitalism?

31. The technological dimension

- If continued technological progress is possible, what ensures that the fruits of this progress will be accessible to all? If the singularity is reached (the merging of human and machine intelligence), what guarantees that its benefits and potentialities will be generally available? Will technological progress split humanity into two categories, those who can enjoy it and those who cannot?
- How dangerous are the unintended consequences of technological progress? Will technology eventually destabilize the planetary conditions making human life possible? Will some technological creation (artificial intelligence) replace humans?
- Is there a trade-off between the technological level of a society and its chances of survival?
- How likely is that the apparently beneficial outcomes of two hundred years of technological development constitute the rule for the future and not the exception? ['Extinction is the rule. Survival is the exception.' Carl Sagan]

32. X-events (the wild card dimension)

- Endogenous X-events. The increasing complexity of a technologically advanced and globally integrated society makes it more vulnerable to the consequences of its own outcomes. Technologies alter the environment in unpredictable ways: it is unknown what effects on human health and the ecosystems will cause the genetically modified organisms and the synthetic toxins generated by production and consumption processes.
- Exogenous X-events. Are the cosmic and planetary conditions making advanced intelligent life possible exceptional and short-lived? [Non-human climate change, biochemical cycles, impact of meteorites and comets, solar flares and cosmic radiation, new diseases, alien encounters.]

33. The domestic political dimension

- For how long will the problems and tensions created by a growing technologically advanced global society be solved democratically, at the domestic level?
- Will the elites eventually revolt to take control? Are not economic crisis (and the asymmetric effects of globalization) an opportunity/excuse for elites to invoke the necessity of stability (concentration of power to handle the problems) over accountability (distribution of power)?
- Does domestic democracy need a sustainable global capitalism to survive?
- If continuous growth is not possible, how will the domestic distribution problem be solved?
- Is democracy incompatible with a sufficiently high degree of economic inequality? ["In a democratic society the existence of large centers of private power is dangerous to the continuing vitality of a free people." Louis Brandeis]

34. The international political dimension

- How likely is the creation of a global government to regulate global capitalism?
- Without institutions of global governance, will the interaction of the major global powers be peaceful or will warfare ultimately settle disputes?
- Without institutions of global governance, is a necessity to have a global hegemon? Will that hegemon exploit its position of privilege to its own advantage or will it be concerned with preserving global stability?

- If global continuous growth is not possible, how will the global distribution problem be solved? How will the struggle for global hegemony be settled? IS a global balance of power possible and stable?

35. The social dimension

- How tolerable is social inequality? How sustainable is a growing social inequality?
- Does global capitalism entail a growing social and economic inequality?
- If social development is, in the last instance, an elite project, for how long will the elites be interested in maintaining the social development project (welfare state)?
- What ensures that conflict within the elite and between the general population and the elite are both peacefully settled? Is that possible if sustained economic growth is no longer feasible?
- Will local cultures eventually revert the globalization process? How likely is that globalization will create a unique global culture? If several cultures eventually coexist, what will ensure that they do not clash?
- Will cultural groups turn their backs on each other (in a degrowth/deglobalization context because they will fight to preserve their share in the social wealth; in a growth/globalization context because benefits/costs may be unfairly distributed among the groups)?
- Will the interaction of globalization with local cultures produce a viable hybrid? Or will one replace the other?

36. The psychological dimension

- Do innovation and leadership depend on the existence of psychopathic personalities?
- How robust are technologically advanced societies to the actions of psychopaths (as political rulers, powerful entrepreneurs, social and religious leaders...)?
- Are technologically advanced societies socially more unstable because these societies are less socially integrated (in general, people are more adrift and lonely)?
- Does the principle of social proof, developed in technologically primitive societies, work for technologically advanced societies? [Principle of social proof: as a rule, an individual chooses what to do or believe on the basis of what the rest of individuals do or believe. Hence, an individual regards an action or belief as appropriate when others take that action or hold that belief: if many are doing something, it cannot be wrong to join them.]
- How dangerous is wishful thinking for society? (In particular, an unrealistically positive view of the future?)

37. The moral dimension

- Is there a sense in which moral progress is possible and exists?
- Is technological, material progress socially destabilizing without a parallel moral progress?
- Is civilization (technological, material progress) an amoral monster?
- Are there moral limits to technological change?

38. The metaphysical dimension: the Doomsday argument.

39. The repugnant conclusion (Derek Parfit, 1984). "For any possible population of at least ten billion people, all with a very high quality of life, there must be some much larger imaginable population whose existence, if other things are equal, would be better even though its members have lives that are barely worth living." Let N be any number of people with a sufficiently high quality of life, Q . Let q designate the smallest level of quality of life making life worth leaving. Then, for a sufficiently high number n of people, it must be that the total welfare $n \cdot b$ of n persons whose lives are barely worth living is larger than the total welfare $N \cdot B$ of N persons enjoying a high quality. Is the situation (n, b) better than (N, B) ?

40. A global trolley problem. Is it preferable (1) to save billions of poor people sacrificing a few millions of rich persons or (2) to save the rich and let the poor starve and die?