

QUO VADIS HOMO SAPIENS

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How will our species fare over coming ages? Will the human lineage survive, reasonably happily, into the far distant future? Indeed, will we survive another millennium in reasonably good shape? Will the next thousand years be just ordinarily difficult or, if the next ice age arrives suddenly, particularly difficult? Supposing we survive the next thousand years, will we eventually go extinct as most species do or will we evolve into a new species with which one might empathise? Or into a whole lineage of species as in Olaf Stapledon's great sci-fi novel, *Last Men, First Men*? And, supposing we continue to evolve, will that new species or its descendants survive the death of the sun as an energy and light source in five billion or so years? Not to mention a clutch of other cosmic challenges, from asteroids to 55 hour days. Beyond that, there is the ultimate question as to if, when and how the universe will end and whether, in some sense, life might best that challenge.

One suspects that most people are bored witless by such questions. They want the future to be kind to their grandchildren but, beyond that, those with a religious road-map are complacent and those without indifferent. Perhaps it is 'new world order' gloom about even getting to the starting gate for the main event. Or is it that there is just no time to lift one's nose from the grindstone, one's snout from the trough. Fiction set in the future attracts the same sort of passing interest as historical fiction, provided that the props and the setting are exotic enough and the people familiar enough. In a world which has failed so many, few feel any responsibility for the future. As Groucho Marx said, What has the future ever done for me?

But for those who are curious, this is a marvelous time to be speculating about the span and richness of our stay here. We have reached an era where science and history have produced a truckload of exciting and plausible, and sometimes contradictory, stories of how things got to be the way they are. The scientific method has expanded our understanding of life and the universe in spectacular fashion across the entire scale of space and time. Thus 19th century geologists discovered the enormity of time and, in the 20th century, Hubble confirmed the enormity of space. Historians, most of whom have weathered post-modernism, have now accumulated the detail which allows their 'big picture' colleagues like Fernand Braudel, Felipe Fernández-Armesto and Immanuel Wallerstein to start finding trends and patterns in the historical record. Anyone who takes the trouble to read and try to understand a sample of these scientific and historical stories will be rewarded with a sense of the past which is not unlike memories, albeit memories that are 'false'. You too can feel 14 billion years old. By the same token, we would be foolish to think that our present ideas about 'everything' are more than a small fraction of what will be revealed over the almost endless years ahead.

More to the point here, the past is the springboard, the only springboard we have, for constructing believable stories about the future. Reculer pour mieux sauter! While the past can never repeat itself, there is a sense in which everything yet to happen will be like something from the past at some level of 'mix and match' detail.

But not in a predictable way. Even the hardest of sciences is wary of making sharp predictions nowadays and multiple scenarios of plausible possible futures are the future-gazer's primary tool. Scenarios are no more and no less than thoughtful hypotheses which time will test. Knowing what has happened in the deep to near past, and perhaps why, informs the scenariographer's choice of what to ask about the long future and to suggest both optimistic and pessimistic answers.

Surviving the 21st century

There is in fact remarkable agreement amongst future-gazers about some possibilities. One is that while every century is difficult, the 21st century is going to be a particularly difficult one for *Homo sapiens*---politically, economically, environmentally and socially. We do not know that of course and insofar as numerous historical ages have seen themselves as uniquely challenged by the circumstances they faced we need to be cautious about such a judgement.

Of all the centuries that comprise humanity's possible future, the 21st is particularly important for two very basic reasons. One is that we are standing in it, most will die in it and our unborn grandchildren will grow old in it; it is the century that captures our personal interests, our self-interest. Another is that the longest journey starts with a single step and this is the century we have to pass through to reach the distant future.

Politically, it looks as though we will have to live through another century of power politics, one in which America's struggle to strengthen its economic, cultural and political dominance will be increasingly challenged. We are entering a world in which for the first time in two centuries there is no international system or structure---as evidenced by the emergence of dozens of new territories without any independent mechanisms for border determination. It is a world in which the First World can win battles against the Third World but not wars, not in the sense of being able to control the conquered territory after 'victory'.

Economically, the failure of marketisation to solve the problems of poverty and sustainability and the growing possibility of a massive energy crisis threaten capitalism as the dominant form of economic organisation.

Environmentally, the use of increasing quantities of fossil fuels and the need to feed a world population of perhaps 9 billion by 2070 will continue to destroy the awesome beauty of the world and reduce its capacity to feed and water everyone. All energy use is a two-edged sword which both creates and destroys order.

Socially, we have just left a century which through its barbarity, inequity and indifference has left many people alienated, sociopathic and malevolent; and not just in the third world. By whatever means are available to them, those people and their children will struggle for recognition and justice or for revenge.

Societies everywhere will break down unless we can learn how to reform institutions---legal, medical, educational etc---which are failing in the face of rapid change. What Alvin Toffler called 'future shock' is nothing more than having to cope with high rates of change.

Shrugging and moving on, the good news for the third millennium, the next thousand years, is that it would be surprising to see the extinction of *Homo sapiens*. However the millennium does contain the seeds of two ‘worst case scenarios’. One is runaway global warming and climate disruption. The other is a rapid start to the next ice age, even as we exhaust the world’s supplies of fossil energy, including uranium. Already, the 12000 year inter-glacial we are enjoying is the longest of the last million years.

Metaphorically, the even deeper future will be a game of dungeons and dragons with our post-human descendants facing a succession of bigger and bigger challenges such as planetary wobbles, permanent drought, and Sun-death as well as random shocks such as volcanic winters and asteroid strikes.

But the deeper future will not just be ‘Posterity versus Nature’. The essence of tragedy is greatness felled by its inner weaknesses. Because human consciousness is a recent development, we are still an adolescent species, particularly in terms of our need for immediate gratification, our need for authority in our lives and our susceptibility to turbulent emotions. While it is no disgrace to be adolescent, the longer we survive, the greater our chances of maturing into a lineage which understands itself and takes responsibility for its own future.

Let me summarise these various prospects with some betting odds. If I thought there was any possibility of collecting, I would become a bookmaker and offer:

- 10 to 1 on that humanity will survive the next millennium
- 2 to 1 against that the lineage will survive the next ice age (it was a close call last time)
- 1000 to 1 against that the lineage can last more than a billion years

And I won’t be taking bets that the lineage will last past Sun-death.

Remember though that these are only bets about surviving, not bets about whether our descendants will be enjoying high quality of life. That is, I still collect if, in Hobbes’ famous phrase, life for most people is ‘solitary, poore, nasty, brutish and short’.

My bookie persona would offer odds of more than 1000 to 1 against to people betting on high quality of life for most people this century and more than 100 to 1 against achieving that goal this millennium. I leave it to others to judge if this makes me an optimist or a pessimist. I am more focused on whether we can improve those odds. Can we, in HG Wells’ phrase, ‘shape the future’?

In asking that question, I am suggesting that there is, beyond curiosity, another reason for being interested in the future and that is to ask if it can be ameliorated, made ‘better’ than it would be in the absence of our collective intervention. While such judgements are of course purely subjective, a better future for me is one in which the lineage survives ‘indefinitely’, maturing all the while in a various ways.

Perhaps we don’t want to shape the future?

My innocent question raises ideological hackles on both the left and the right once it is recognised that you can’t even begin to purposively shape the future without social

goals. If you don't know where you are going, it doesn't matter which bus you catch. Disciples of a-social individualism think there is no 'we' to do any shaping and collectivists, while willing in principle, see no way of integrating diverse individual interests into social goals. This bipolar crankiness is strange because participatory societies everywhere, including those with neo-liberal aspirations, are forever making collective decisions which muster a workable level of acceptance. Rousseau lives!

Perhaps what elites really fear is that making social goals explicit invites dissection of both their inherent worthiness and the speed at which they are being approached. There is also a fear of naïve utopianism with its 3000 years of visions of societies pursuing ideal end-states which are foreseen to remain unchanged once achieved. And then there is that remnant of people who believe that 'progress' will occur without any particular effort on world society's part. Why, these last ask, would we want to deliberately shape the future? The technological optimists and the market liberals are well-represented in this cohort.

Let me leapfrog this impasse on a 'just suppose' basis, taking it as a working hypothesis that the people of the world have made it clear that they want the lineage to survive and survive well (Idea: Why not ask them?). More succinctly, I call this idea 'quality survival' meaning that I am envisaging world-society working towards giving most people, now and into the indefinite future, the opportunity to live a high quality life. Beyond cultural specifics, a high quality life is one where you can meet not only your basic physiological needs but also your higher needs for love and social bonding, for autonomy, for creative activity and for meaning.

Leapfrogging the quandary of contestable ends lands us in the mire of contestable means. Managing the future is a 'wicked' problem, meaning that it has no definitive formulation and no conclusively 'best' solution; and, even worse, that the problem is constantly shifting. So, what do we do?

Well, one thing we can do is tackle the important things first. What about shaping the future by using our limited energies to identify and then responding to a rolling (ever-changing) set of priority issues. I am seeing 'priority issues' as matters judged to have a major influence on whether the lineage can achieve quality survival. They are 'rolling' in the sense that they will need periodic revision as circumstances change. The homely principle being invoked here is 'If it itches, scratch it'.

But don't scratch wildly. The best way to steer between knee-jerk and prescriptive programs is to ensure that societal choices are compatible with well-crafted and wide-ranging policy guidelines---rules of thumb if you will. More prosaically, these are checklists of things to be avoided and things to be included, *as far as possible*, in society's plans. One could give generic examples (eg avoid external costs, look for solutions which satisfy multiple needs) but the best guidelines are likely to be context-specific (eg no clear-felling just here, replant with native species over there).

Obviously at the top of any momentary list of priority issues comes the aforementioned family of difficulties that we face in the 21st century---political, social, economic, environmental. We need guidelines for tackling, *inter alia*, the burdens of war, oppression, population growth and resource depletion.

Should our political guidelines assign highest importance to seeking a world federation and for promoting participatory democracy? And, under social guidelines, is tackling an endemic sociopathy the paramount need? Many people dislike and distrust others. Brotherly-sisterly relations between people are the basis of any society's social capital. Or perhaps the real priority is getting the social contract between citizens and government more explicit and hence better able to constrain self-interested elites.

But, thinking outside the box of 21st century challenges, what are the life skills that our precocious adolescent lineage must start developing if she is to maximise her prospects of surviving well over epochs and eons?

Let me suggest two. One is learning how to manage societal change; the other is learning how to learn---how to increase the pace of social learning and become a learning society.

In common with other complex systems driven by large flows of energy, human societies have a tendency, on one hand, to collapse or change direction dramatically, and, on the other hand, a tendency to stagnate and fail to adapt to external and internal change. Change is never-ending and even an apparently stagnant society is bubbling away underneath and moving towards the thresholds and crises at which change will boil over.

Understanding this complexity well enough to develop guidelines which will protect societies from their own instability and fragility, and, at times, their excessive stability--- gridlock and senescence if you like---is, in my view, a priority issue.

Getting such understanding is however a truly difficult problem which science is only just beginning to address. Some progress has been made---using counter-cyclical economic measures is a simple example---but considerably more research over a long time will be needed to learn how to manage the stability problem with confidence.

The 'learning society'

What do I mean here? A learning society is one that allocates a high fraction of its brainpower to the task of acquiring the knowledge that just might guarantee high quality of life for most people into the indefinite future. What we know today is not nearly enough---from cosmology and planetary dynamics to biological and social evolution.

Starting now, we need to nurture and boost this 'social learning' process. But how? Here are four guidelines to get the ball rolling:

- First of all, we need to learn how to learn more effectively. For example, knowledge has to be organised hierarchically if overload is to be fended off.
- Next, given the difficulty of predicting complex system behaviour, we must recognise the importance of taking an experimental approach to social learning. What works is what matters.
- Also crucial to the social learning process is how we educate and nurture our children so that they develop a passion for learning and understanding.

- Finally, despite its many problematic consequences, scientific research must continue to have an increasing role in social learning.

Rationality is not enough

As drawn out above, the ‘deep futures’ project is ineluctably rational. Here is how it goes. A maturing lineage decides that what it wants from the future is quality survival; and that the best strategy for achieving such is to systematically ameliorate existing constraints on achieving the good life while simultaneously preparing for future challenges by enhancing risk-management and knowledge-making skills. It is a strategy that may well fail but, meanwhile, it offers purpose and answers Lenin’s question ‘What is to be done?’

Yet there is something lacking. Making big plans and implementing demanding programs requires more time and knowledge than we will ever have. If people are to jump the cracks that will appear in the best laid plans, they will need to be buoyed by passion and enthusiasm. And for that they will need to know what story they are part of. History and the historical sciences offer Darwin’s children a ‘creation myth’, but where is the ‘destiny myth’ in modern secular societies? What is the role of the lineage in the unfolding evolutionary play?

The wording of the question suggests the answer and the answer is a metaphor. Everything in the universe has a life cycle and that includes you, me, the species and the lineage yet to come. As distinct from the science, the art of managing our lineage’s life cycle is to see it as an existential challenge fully comparable to the challenge of constructing a successful human life. That means envisaging and then attempting to live out a scenario script in which the actor playing the lineage, let’s call her Posterity, moves through a program of big challenging projects towards fulfillment. Whether it is something called quality survival that becomes humanity’s telos, its inspirational image, is less important than that there be one.