A List of Fifty

Ten Emerging Developments in Human Society

Ten Critical Required New Technologies

Ten Areas of Urgent Intensified Research

Ten Scientific Projects that Require Support

Ten Humanitarian Projects that Require Support

Ten Emerging Developments in Human Society

Overpopulation

Must be solved or Nature will solve it in abrupt, hard, non-linear and unforgiving ways. There are logical, rational ways to go about this, which actually will gain the support of hundreds of millions of people – actually, billions. The solution does not require actions that are bureaucratic or totalitarian or that people will see as infringing on "rights and liberties."

Response to global climate changes

If we as a planetary society do not do what Jørgen Randers outlines in "2052: A Global Forecast for the Next Forty Years" then we will not be able to adapt and survive as a sustainable society and civilization. Go read the book. And everything connected with it.

Global information connectivity and access to data

This is part of the next phase of human evolution but it is not being done properly as too many people and cliques (corporations, clubs, minority circles of elitists) are trying their damndest to maintain the Old World Order which is a type of feudalism that is now kept alive essentially by "CPR" type resuscitation. One of the paths to a viable healthy evolution in these matters will come from the gradual emergence of "alternative internets" and the ubiquitous growth and dispersion of "internet of things" – gradually there will be more actions coming from self-organized emergent groups of people particularly in rural and historically "undeveloped" regions of the globe.

Energy depletion

See "overpopulation" (OP) and "response to global climate changes" (RGCC). This must be address and solved. There are ample ways to reduce energy consumption and waste and entropy within energy infrastructures, and there are ample ways to have sufficient and sustainable renewable energy for all planetary needs – solar, wind (especially VAWT and small-footprint systems), micro/mini-hydroelectric and tidal/current systems, geothermal, biomass, and controlled thermonuclear fusion, and then, of course "Cygnus" (quantum-vacuum flux energy extraction) technologies which are theoretically sound but not yet being sufficiently researched.

Food depletion

See OP and RGCC and "energy depletion" (ED). There are ways to produce enough healthy food for even the current extraordinarily over-the-limit population of humans and domesticated livestock mammals. They are not being pursued. EcoVita (EVA) is a clear example of how technologies can intelligently be employed to optimize the entire food production lifecycle. The challenge is, again, from over-bureaucratized infrastructures. These will suffocate and collapse, but the grave risk is that most of civilization will suffocate with them.

Water depletion

See OP, RGCC, and ED. The planet is on the very edge of a catastrophic situation with respect to potable healthy water. This is a problem for which there will be unavoidable catastrophic events in coming years and decades. But we can recover from those – if we act now to avoid worse situations.

Stress and fear as chronic and mass-social conditions

This has led to a pandemic situation of what may be termed "SIV" – Social Irrationality Virus – a meme-based viral disease that is acting very much like how "cytokine storms" act when the immune system overcompensates to infections. Over-inflammation, and the consequences, which are often fatal. All of this must be studied through the perspectives and tools of PSED – PsychoSocioEconomic Dynamics. The resources – the mathematics and computational tools – exist, finally, for doing this in the way that can yield accurate and reliable results. The major risks of "SIV" include massive wave-like transitions of huge social groups, as nation-states, as highly armed nation-states, into mega-bureaucratic and totalitarian states. This is a unique type of combination that is extremely dangerous for the survival of human civilization. The closest to what is now emerging in this direction, that human society had in the past, was Nazi Germany. But now it is happening principally in America, and there are much more powerful technologies in the hands of those who want to use them to build such "fascist empires."

Automation including robotics

A major realignment and resetting of thinking across many societies, particularly those of USA and parts of EU, are needed. The people who are literally ranting about how robots can do everything, and

promoting a "Singularity" world where all work is done by robots, etc. – these people are fortunately in a distinctive minority in spite of all the noise they generate over the internet. Robotics will help in many ways, and the future does involve Space, and robotics will help with Space development. But things must be put into the proper perspective in terms of why there are robots, why there is technology, why there is work, why there is Life.

Social stratification, division and conflict

See "Stress and fear" and also OP, RGCC, and indeed, all of the previous topics.

Microtechnologies for individual environments

This is not only about "IoT" ("internet of things"). It concerns the refinement of other types of engineering, not only conventional digital semiconductor-based electronics. The beginnings of MEMS technology have only been initiated during the past two decades in any serious, substantive manner beyond "basic research."

Ten Critical Required New Technologies

Planetary population management
(Reduction of extreme and uncontrolled growth rates)

Reduction in consumption and waste

Optimization of urban habitats and energy systems
("Green Cities" and Soleri-type eco-integral mega-structures)

Space transport, exploration, industrialization, habitation and colonization

Planetary defense
(ASTRIC)

Food production methods and locations including dense urban environments

Superconductivity and low-current, low-power electronics

GCM computing that addresses highly complex, uncertain, noisy and hard-to-measure systems ("XCS")

Reorganization and restructuring of most labor in ways that reduce daily commuting to centralized facilities (offices, factories)

Controlled thermonuclear fusion

Ten Areas of Urgent Intensified Research

(Serving all of the above "critical new technology" areas)

Biologically-modeled and biomolecular-based trans-Turing computing (GCM)

Composite materials

Synthetic biology (not merely genetic engineering, but new structures and metabolic pathways)

Quantum communication and signal processing including long-distance transmission

Quantum biology and quantum resonance/entanglement in neuroscience applications

Thermonuclear fusion reactors

Space robotics, construction, power generation, industrialization, habitation

Interstellar transport

Biologically-integrated neocomposite materials

PSED (PsychoSocioEconomic Dynamics) and Predictive Analytics ("SELDON Machine")

Ten Scientific Projects that Require Support

NeoPlexus

    http://neoplexus.org

EcoVita (EVA)

    AgrIntel, IntelEco, Intelergy   http://mirnova.org – see Projects/EcoVita

Teranod

    Controlled thermonuclear fusion using resonant pulsed convergent multiple solitonic neutron beams

ASTRIC

    Astro Terrestrial Robotics with Intelligence and Control   http://astric.instinnovstudy.org

Space-based L5-orbit (geostationary) and lunar-based solar power generation

Fundamental theoretical physics involving quantum mechanics and general relativity

Fundamental models of biological cybernetics and particularly processes of epigenetics

Alternative Lift and Propulsion Technologies

      Obviating the old-fashioned mechanism of missiles and rockets

Lunar and Interplanetary (Mars-focus) Habitation and Development including Terraforming

Depth Psychology and Research into the dynamics of the Collective Unconscious and the Science of Spiritual Experience

Ten Humanitarian Projects that Require Support

EcoVita (specifically AgrIntel) for the subtropical regions and populations of the world

      Refinement and expansion of what was first developed as EcOasis (2007+) and variants thereafter

VNT (Visual Neurotherapy) as methods for treatment to prevent, delay, offset, and reduce the effects of brain trauma, stroke, and dementia disorders

"Ars Bio" type artistic exhibits, workshops, "master classes" and other S.T.E.A.M. projects that focus upon conscious awareness and dialog about diversity, unity, and connectivity among phenomena

S.T.E.A.M. education that is like the type being done and developed by MIRNOVA Academy and similar organizations, with an emphasis upon integrating education, research and communication, and engaging youth, apprentices, craftsmen, journeymen, masters, and emeritus experts.

Conservation and preservation of wildlife in mega-tracts of land and sea

"Andalusia Summit" type special symposia events

"AMERGE" type programs for communities to be prepared and resilient in the event of infrastructure-destructive catastrophes and other disasters

Healthy Lifestyle Projects designed to educate and train people beginning in pre-school youth regarding abuse, violence, dependencies, addictions, and the cultivation of healthy psychophysical lifestyles

"Arcology" type parks and urban natural areas and the means for encouraging people to use these

More art galleries and exhibits and more music concert halls and cultural events