

# COSMOSOPHY, A PHILOSOPHY FOR THE NEW MILLENNIUM

*We are heading towards a new world where Homo sapiens will be gradually replaced by robot sapiens, leading to doubt and confusion in the minds of many who have a desperate need to cling to clear moral values and a strong social support system. The ideal combination would be to reconcile scientific knowledge with spiritual culture for "science without conscience is the ruin of the soul".*

CÔME CARPENTIER DE GOURDON

## INTRODUCTION

**N**ever before in recorded history has mankind, now in the throes of a momentous and as yet unpredictable mutation, felt so great and so urgent a need for a global 'modus vivendi' guided by a universally relevant philosophical system. The definition of a supra-culture internationally valid, and intellectual frame of reference, to replace liberal and marxist ideologies, both morally bankrupt, must take into account contemporary scientific data and traditional legacies inherited by the world's diverse civilisations, in order to be at once widely acceptable and logically defensible.

Indeed our global village is in a state of intense moral confusion. Current religions and ideological systems are often perceived as having lost their relevance, if only because they are more frequently factors of strife rather than tools for building concord.

In the last few years some momentous epistemic revelations have emerged to challenge and unsettle a few of the most cherished certainties on which modern civilisation was built.

In this article we will describe briefly some of those harbingers of change which entail profound transformations in the mental and physical structures of the present globalised system, affecting virtually all areas of thinking and action by modifying the most basic notions we entertain about our beings, roles and destinies. Rather than repeating well known socio-political and economic statistics and assessments about the state of the planet and the fate of mankind, we will focus on the evolving scientific knowledge and on a few of its technological implications that are likely to shape the upcoming generations in one way or another.

The double role of humans as keepers of an ageless spiritual and technical inheritance and as explorers of the infinite cosmos implies that we should try to weave the warp of traditional culture and the woof of scientific inquiry into a seamless texture, for all matter is 'stuff' whereas 'reality' is both a fabric and a text. Otherwise it looks as if the yarn of our evolution could unravel and the script of our evolutionary story disintegrate into meaninglessness.

The need for a creative synthesis requires us to go beyond the familiar precepts of Cartesian dualistic methodology, just as mathematics and physics have had to grow respectively beyond Euclidian geometry and Newtonian mechanics in order to accommodate the advances made by Rheimann et Bolyai on the one hand and by the relativity and quantum theorists on the other.

The evolution in our awareness of reality is so rapid and so profound that we have not yet built a coherent theory capable of taking all the new facts into account. While physics is gravitating every year closer to the elusive, long-sought unified field cosmological model, our epistemological structures are still largely shaped by concepts prevalent at the beginning of the twentieth century and are hence inconsistent with the sharpened vision of psychic and material reality that is forcing itself on us. As a result of the disconnection between insights and theories, the gap is widening between scientific knowledge as manifested in our budding technological abilities on the one end and our socio-political, cultural and economic institutions and practices on the other. Unsurprisingly our societies are evincing symptoms of schizophrenia, reflected in the increasingly frequent outbursts of individual and collective insanity and in the widespread signs of alienation that have become all too obvious and shocking.

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A case in point is the interminable, repetitious 'Middle East Peace Process' where, increasingly 'make-believe' routine and rituals are performed in order to protect certain sectorial or private vested interests and privileges by preventing change, even though less and less members of the 'public' or 'electorate' are

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duped by the empty, listless exhibitions of elected leaders on all sides trying to show that they deserve the benefits of their positions. Political power has been reduced to the level of a mere allegory chained to the twin towers of the private economy and the public bureaucracy, but if the political system upholds the barriers of 'politically correct' conformity to ban both frank speech and new ideas, the scientific establishment would stifle, challenging research in the name of its founding dogmas

and authoritative precedents, in order to remain faithful to the positivistic, too often inappropriate world view it has retained through the last two hundred years.

In the political realm, electoral democracy as understood in the Western liberal, individualistic praxis has become a quasi-religious tenet in which blind faith replaces a rational evaluation of its frequently dismal effects. The contemptuous fear of 'populism' in Western societies, confronted with the rapid spread of that so-called populism, is not only a grudging acknowledgment of the innate flaws of the democratic system, it also betrays the insincerity of the privileged classes who are the main beneficiaries of the democratic procedures since it is indeed paradoxical for them to denounce populism, short of admitting that they profess one form or another of technocratic and financial elitism.

As a result of that increasingly apparent hypocrisy, the ruling institutions are facing a backlash of public cynicism and distrust which robs them of much of their remaining claim to legitimacy. A case in point is to be found in the widespread skepticism in the USA about the real policies and motivations of the government in the face of the terrorist acts that shook the country on September 11, 2001. The noisy displays of warlike resolve in the White House have failed to convince a very large segment of the population of the truthfulness of this administration, widely suspected of hiding facts and lying before, during and since the '911' crisis. A similar distrust of elected governments and state administrations is to be found the world over but is rising particularly in affluent, 'democratic' nations.

Likewise, the scientific authorities are not above suspicion; we need not refer to further details to some of the heretical but highly probable conclusions reached by certain researchers in the areas of astrophysics, biology, exobiology, paleontology, archaeology, anthropology, history and parapsychology in the last decades, to recall that many momentous leads have not been followed because they ran counter to or were at least perceived to contradict some of the hallowed assumptions of Western enlightenment philosophy.

Certain readers will rightly object that ideological conservatism and intellectual conformity are nearly constant traits of the average human character; however the technical abilities we have acquired or are about to master are so much greater than they ever were in documented history that they imperil our collective survival as never before. That is a compelling reason to react against our atavistic tendencies when they turn out to be self-destructive.

#### THE DAWNING CYBERNETIC SOCIETY

**I**n the economic sphere, the global hegemony of a small clan of financial and industrial firms reflects the increasing complexity of the knowledge and know-how required to exercise power in a highly technological society. The vast majority of citizens is less and less able to cope with the material sophistication of the fast-changing machinery of which they are mere servants and end-users. That situation marks a transitional stage towards the brave new world... A world in which supercomputers assisted and serviced by bio-electronic robots (the cyborgs or androids familiar to science-fiction) will control and regulate international society. The computers of after-tomorrow would be

photonic, i.e. “boxes of light-particles... (consisting of) gamma-ray photons”. They will be compromises between serial and parallel processors, each of whose sections could function independently but in contact with all the others in the way that the universe itself operates. Walter Simmons of the University of

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Hawaii at Manoa calls those future artificial minds “high power relativistic devices similar to particle-accelerators”. With his colleagues Xerxes Tata and S Pakvasa, Simmons explores the outer reaches of relativistic computing. Seth Lloyd from MIT goes even farther to envision, on the basis of the string theory of advanced physics ‘black hole microscopic or nanocomputers’: the ultimate serial thinking machines operating in total simultaneity and

whose entire energy will consist of information, thus achieving true 100 per cent efficiency.

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To maintain a shaky supremacy over the artificial competitors of their creation, our children will almost surely have recourse to ‘biotech workups’,

wear 'exoskeletons' (currently being developed at MIT for the US Army), utilise nanotech assemblers to manufacture sophisticated tools out of cosmic energy and psychic morphing blueprints. Those visions are no longer found only in science-fiction literature; they are described in government reports, authored by major think tanks like the Rand Corporation in the USA.

Even though some scientists such as Douglas Hofstadter, the well known author of *Godel, Euler and Bach*, dispute the claim that artificial intelligence may surge ahead of its human designers in the foreseeable future they cannot deny that, in terms of performance and resilience, 'thinking machines' are already far superior to human brains in their respective fields of application. That trend can only wax stronger.

The challenge posed by this imminent and momentous transformation of our kind is so daunting that it implies a drastic revision of most if not all moral precepts and practices taught by a majority of the world's religions and hitherto observed on most parts of the planet.

It is obvious for one that the merger between the life sciences, the endeavour to map the brain and various advanced technologies will both 'humanise' machines and 'mechanise' human beings. The reification of consciousness and thought — "all thought must be a machination" as the leading neurobiologist Z Neubauer puts it — will bring about an unexpected confirmation of the old quip regarding the relative realities of matter and mind. If mind "does not matter" (while, about matter "never mind") precisely because it is some sort of 'electrochemical' phenomenon; if life is also a physiochemical process, then the mystery of the former and the sacredness of the latter vanish and they may easily be regarded as patentable, commercial 'products' or commodities, just like the vegetal and animal genetic material. Most 'animistic' beliefs and ancient religions, and Hinduism in particular, warn of the danger of reducing our own substance to the lowly rank of 'stuff' that can be created, manipulated and destroyed with impunity for pleasure, power or profit.

Yet, as the French neurobiologist J P Changeux writes in his opus *L'Homme de vérité*: "Everything that belonged traditionally to the field of spirituality, transcendence, immateriality is being materialised, naturalised and, put simply, humanised". Gerald Edelman adds: "the neuroscientific evolution, already as important as (the revolutions) engineered by Copernicus, Darwin and Einstein, bears forth a new theory of soul and body which has only begun to upset our belief systems".

If indeed we can modify the human genetic fabric and thereby transform, 'improve' and clone ourselves in the name of health, aesthetics, physical performance and intellectual enhancement, how shall we avoid creating 'specialised' individuals for war (supersoldiers), sex (superprostitutes), work (superslaves), sports (superathletes) and so on? Our species will thus cease to be fully part of the primate order and grow closer to the genetically hierarchical hymenopterous insect societies, best illustrated by the ants, the termites and the bees to which we are drawn by our increasing demographic density, urban organisation and occupational sectorisation. When the long training already required to master the complex technologies that underlie our socio-economic system will be preceded and supplemented by eugenic conditioning and cybernetic upgrading (similar in nature to the hearing and visual aids or the surgical implants that are becoming so common), mankind will have in effect drifted farther apart from the status it kept during the last several centuries than it now stands from its cave-dwelling ancestors.

Some foresee a divided species broken into three castes, the 'technically enhanced' individuals, the 'naturals' who will shun artificial interventions for ethical or religious reasons and 'the rest' who presumably will lag behind economically and socially. As Joel Garreau remarks in the *Washington Post*, May 4-5, 2002, "this is a recipe for conflict that would make racial differences quaintly obsolete".

One of the major changes will come from the apparent demystification of most hitherto unexplained forces and processes which will deprive people of the recourse to traditional religious creeds, at least in the sense of uncritical acceptance of dogmas taught by hierarchical clergies. That in turn, if human psychology is taken into account, could bring about widespread disenchantment and the resulting despair that no amount of material well-being and scientific enlightenment would be able to cure.

#### THE QUANTIC LEAP OF CIVILISATION

**H**ow will the 'Homo sapiens' modify their religious and cultural behaviour upon witnessing the collapse of many time-honoured 'truths' about the origin and history of the cosmos, life and civilisation? Indeed we must be soon prepared to confront the existence and the presence of an indeterminate number of 'alien' life forms in the universe, some predictably far more evolved than

ours. We also ought to admit that travel in space and time may soon abolish some of our essential limitations, that the reversal of gravity for propulsion could enable us to reach hitherto unthinkable speeds. The cosmos itself is beginning to appear as a fractal, transfinite, multiply connected, topologically compact, multidimensional and substantially energetic continuum in which matter arises 'ex nihilo' with boundless abundance and variety. We are able to peek at our infinite mental reach and potential, and to incredulously take stock of our ever expanding, virtually prodigious physical abilities while overcoming what Max More, President of the Extropy Institute calls "human nature's confines".

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How those dawning realisations will affect us is far from clear because we are on the threshold of a cognitive quantic leap. Unfortunately the narrowly specialised focus of most scientists and thinkers does not make it easy for them to take into account the manifold consequences of an essentially interdisciplinary phenomenon. The American philosopher Thom Hartmann in a thought-provoking essay has reviewed man's evolution from his 'edenic' origins through this current stressful, hyperactive moment.

After recalling the well known fact that the earth's resources are insufficient to support the present human population at the consumption level of an average US citizen or western European, which shows that the ideal of the 'American way of life' is doomed in the rather short term, Hartmann points to the universal tradition of an initial golden age as proof that progress is not an objective, unambiguous trend but that it reflects a hesitant, often misleading, cyclical yearning to go back to dimly remembered happy origins. Although he rightly regards the return to a way of life in harmony with nature as the solution to our current predicament, we must also recognise that the technological transformation of society is too profound and wide-ranging to be reversed. We should accept that science and technology in their present and future forms can help us to restore our harmony with the cosmic order. For instance, while freeing us from dependence on non-renewable fossil sources of

energy the emerging knowledge should enable us to tap the inexhaustible supply of power that makes up the cosmic continuum.

The problem will however remain, for a majority of people bereft of their ancestral familiar blind creeds, to find a purpose and a meaning to life in this strange relativistic new world. The need for simple answers, a strong social support system and clear moral rules is pushing many segments of mankind toward fundamentalist interpretations of their old faiths or goading them to join the multiplying sects that beckon them. The technological advances we have described only seem to reinforce that widespread phenomenon and it can

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that such a situation reflects the age-old war between the privileged and the poor but it also manifests a deeper level of cultural alienation, on the lines of the crisis which, some eighteen centuries ago facilitated the gradual takeover of the powerful Roman empire by the Christian Church, a 'sect' that could in today's language be described as a relatively 'fundamentalist' factor of social and cultural reform.

Revealed 'supernatural' religions, singularly Christianity, have indeed had a decisive influence in the making of the modern progress-driven ideologies. However, paradoxically those religions are also less able to adapt to the scientific world view because their messianic character rests on a linear view of history and requires or at least favours a literal interpretation while discouraging a rational analysis of the founding mysteries. Christianity borrowed some of its major features from the mystery cults of Graeco-Roman antiquity and as such is vulnerable to positivistic refutations on rational grounds, much more so than cosmological, cyclical theologies based on the observation of nature and the exploration of consciousness such as Hinduism, Buddhism and the spiritual philosophies of ancient China, Japan as well as most 'pagan' traditions worldwide.

Some affluent, technologically-advanced societies are, at least apparently, adapting to this relativistic, post-religious 'zeitgeist' by promoting amorally tolerant, utilitarian attitudes while turning their collective backs on their ancestral, often stern beliefs. A good example of post-modern laxity is provided by the Netherlands where open homosexuality and other deviant lifestyles, drug-consumption and euthanasia have been legally institutionalised while other controversial innovations regarding human cloning, eugenics, crime prevention, law enforcement, psychiatric treatment etc... are on the way.

It is too early to tell however that there won't be a conservative reaction, as forceful as it will be belated, to a permissiveness which is visibly causing damage to the fabric of Dutch society and, if the past bears any lessons, is a sign of decadence rather than a standard of healthy flexibility. In practical terms, nevertheless, the prolongation of life engineered by medicine inevitably raises the question of financial costs to society and leads to the adoption of ever tighter forms of birth control which in turn is sure to wreak havoc with many fundamental moral norms and with the very notion of individual freedom.

It would not be realistic either to assume that the new revolutionary abilities and choices allowed by recent and upcoming scientific breakthroughs can be conveniently regulated and their morally-repugnant expressions banned by mere decree. History shows that people worldwide have generally done sooner or later what they had the power to do, when they found it to their individual or 'tribal' advantage and there is no reason to think that they will behave differently in coming years.

A PROPOSAL FOR COSMOSOPHY

**T**he integration of the scientific data that fundamentally affects our perception of reality and our own nature must therefore go on par with the assimilation of the ancient religious traditions into the emerging society of the twenty-first century. That is the greatest challenge we face and the vision we ought to project must be commensurate with it.

We must devise a philosophical doctrine capable of reconciling scientific knowledge and spiritual culture. Back in the seventies I proposed to call this queen of the sciences ‘cosmosophy’ as a successor to the theological systems which helped build and sustain the great cultures of Antiquity, the Middle Age

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and the Renaissance. Cosmosophy is at once a theory and a praxis, meta and post-Cartesian and it represents a synoptic, synthetic, hologic and analogical philosophy of science. As such it is an ‘Ars Magna’ in line with the cosmological constructions of the past forty centuries in the East and the West, from the *Upanishads* to the Buddhist metaphysics of Nagarjuna and his successors and from the Ionian systems of Ancient Greece to the alchemical arcanaes of Hermetic literature.

I also defined the intellectual process that underlies cosmosophy by the name of ‘psychosynthesis’, from the analogy with biological photosynthesis which begets energy and living matter out of photoelectric radiation and water. That mechanism provides a fitting allegory for the marriage of innate mental intuition with the experience derived from knowledge — both ancient and modern — producing an awareness of internal and external reality regarded as indivisible, at once transcendent and immanent. The resulting perception-conception dipole is metaphysical and operational at once, like the esoteric disciplines of Western and Eastern traditions and it lays a firm foundation for the technological progress we have embarked on. Cosmosophy may be defined in short as the philosophical horizon emerging out of the relativistic, fractal,

quantic, transfinite and semantic structure of the universal reality. We should point out at the outset that such a non-binary, inclusive and paradoxical logic, expounded by various Mahayana schools of Buddhism corresponds to the programming of the soon-to-be-built quantic computers predicted by Richard Feynman. Indeed the plasma-state, superluminal speed computer of the future will have to operate beyond the mutually exclusive antithetical alternatives of linear analytical intelligence in order to mimic the non-dualistic laws of the relativistic space-time field reflected as on parallel tracks, in the fundamental laws of both the physical and the abstract sciences (logics, mathematics, hermeneutics) that their respective advances lead to a merger, thus manifesting the analogical, convergent character of those two orders of reality.

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The cosmosophical 'hologic' resorts, in the vein of the traditional religious teachings, to mythical imagery. It employs allegories, symbols and icons to allude to things and beings in their hidden dimensions, proceeding upward from the concrete to the subtle, from the visible to the invisible and from the image to the essence. Cosmosophy thus recognises the analogy between the physical process that combines atoms to form molecules, substances and beings and the diverse cultural mechanisms which build texts (verbal and then scriptural fabrics) with words, first on the basis of onomatopoei sound bites and later with the help of ideographic molecules or alphabetic atoms.

The resulting cosmosophic language is poised at the crossroads of science and poetry, at the meeting point between analysis and synthesis, much as modern physics is forced to integrate the universal property of emergence, thereby reconciling randomness and determinism. In that light, one of the leading scientists of the past century, David Bohm, concluded a few decades ago that "implication guides explication, synthesis precedes analysis".

#### THE EMERGING PHYSICS

**T**he non-dual logic we have already referred to integrates the complementary and 'non-mutually exclusive' nature of the polar opposites

of binary awareness: infinity and finitude in time and space are reconciled within the notion of 'fractal transfinity'; likewise mind and matter may be envisioned together as a dipole, in line with the Nobel-laureate physicist Brian Josephson's "project for the unification of mind and matter" (Cavendish Lab, Cambridge University). That holistic awareness is expressed in the hypothesis

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of the 'Quantum Tantrists' who propose to apply well known but baffling principles of physics, like quantum entanglement to build machines for ESP (extrasensory perception), PK (psychokinetics) and time-travel by using the property of 'coupled context' which assumes the instant propagation of wave particles across or rather beyond and beneath space-time in a topologically 'mutiply connected' continuum,

essentially non-local though statistically localised in its quantum appearance, in conformity with Bell's theorem and Eberhard's proof.

Nick Herbert, the co-founder of the 'think tank' called the AMY project has proposed naming 'convivium' a machine, yet to be invented, able to connect the operator's mind with any other mind or the 'quantic essence' of any physical entity, regardless of distance. He predicts that it will function by establishing 'clear loops' (patterns of quantum phase connection) between any two centres of awareness. He sees technology as being characteristic of the future, participatory and not just observational science and qualifies the convivium as "a starship to other worlds... locking minds on the symbolic level... A telescope for the soul" while recalling that the new 'mystical' physics, factoring the psychic parameter in the cosmic equation was heralded by no less a founding father than Werner Heisenberg.

The new knowledge of nature also leads researchers to question the hitherto intangible precepts of Einstein's relativity theory which the Italian philosopher Michele Russo explores in its logical but challenging psychological implications. He concludes that "from the standpoint" of light and gravitation, space is reduced to nothing and all time is eternally present, not just before the so-called 'big bang' but now, at every instant so that light and gravitation eternally

contain all events and beings that ever appeared, are appearing and will appear in the cosmos, as if they were all recorded on film.

That in turn implies that life is an inseparable, indispensable part of reality and that the human mind, being a manifestation of life is also present, without beginning or end because it partakes of that 'space-timelessness' along with all other things.

Russo's conclusion, consonant with the cosmological theory of Andrew Cohen, Afkani Hamed and Georgi that time alone existed before spatial dimensions came into being in the early universe, reinforces and expands the well known anthropic principle which shows that potentially the abilities of consciousness to understand the cosmos and harness its power are unlimited because the former (the mind) is not separate from the latter (the universe).

The universe is revealed as being at once immanently regulated and yet unpredictable and chaotic in its evolution. Contrary to Einstein's quip, its rules seem similar to those of a game of dice from a human perspective, and indeed the image of dice is often evoked to describe the cosmic game in the Vedic scriptures and in the *Bhagavad Gita*.

Lt Colonel T E Bearden (US, reted.), the American physicist to whom we will refer in greater detail in the course of this article remarks in one of his scientific articles: "...Such a dead notion is the belief that randomness cannot be controlled. That is no longer true. In modern adaptive, non-linear control theory combined with non-linear oscillation theory, random oscillations can indeed be brought under control and used".

One of the practical applications of this new vision of the cosmos, called 'holistic physics' by Herbert would consist in harnessing the boundless, unified field of electro-magneto-gravitational energy according to Kaluza-Klein's model, further elaborated by Sachs and Evans. We are beginning to see concrete illustrations of that theory which can provide a solution to the energy problems of mankind if we can efficiently tap the space-time continuum with over-unity generators using the Aharonov-Bohm effect. Some physicists and engineers, Bearden among them, are working on the breakthroughs made by the founders of electromagnetics, Maxwell, Heaviside, Poynting, Tesla and T T Brown and pursued since then by less well known researchers such as Kron, Searl, Sweet, J L Naudin, P K Anastasovski, Butler and T Ventura. Of those various groups, some, like the 'Transdimensional Technologies Corp' headed by Jeff Cameron in Alabama, are spin offs from secret defence research projects pursued during

the last few decades, and they may well succeed in breaking what Heinz Pagels called the cosmic code, thereby giving us access to literally boundless opportunities for power generation, planetary and space travel, health care and biological age reversal.

According to the extended non-Abelian electrodynamics theory, the law of energy conservation applies not to the three-dimensional space but instead to four-dimensional space-time which includes consciousness and in which the creation of a dipole has a symmetry-breaking effect resulting in the pumping

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of neguentropic 'time-energy' into the space continuum. That open system produces a steady flow of power statistically calculated by Bearden and his colleagues as being ten trillion times more than the amount harnessed by existing generators and turbines, based on the old concepts of under-unity closed loop energy production, whether fuelled by fossil fuels or by renewable

sources. The application of that new technology would give us the ability to escape the rigid conditions of our three-dimensional environment by breaking into hyperspace or bending space-time to change location instantaneously and, in a separate application, reversing the flow of time in order to heal and regenerate living cells.

Bearden expresses the underlying theory in those few words: "electromagnetic waves, potentials and fields are only the surface manifestations of a vast, hidden, super electromagnetic flux for which all conventional EM entities (fields, waves, potentials) inside matter and in space are just superhighways".

#### A GLANCE AT THE FUTURE OF TECHNOLOGY

**W**e may predict that, sometime in the coming decades, while electrical currents churned out of the 'cosmic field' will feed our homes, our factories and our machines, light electromagnetic levitation systems (lifters)

will carry people and goods silently in the air, according to a technology currently being tested which has the potential of making redundant most roads, railways and seagoing vessels. "Asymmetric gravitational wave propulsion" (twew) and antigravity engines, under investigation on behalf of NASA since several years will propel spacecraft faster than light both in orbit and in the farthest reaches of space. Energy will indeed become so inexpensive and clean that it will be virtually free as the great inventor Nikola Tesla predicted in the first decades of the twentieth century.

The near collapse of the economic foundations of our industrial society, rooted in the exploitation, control and distribution of fossil fuels, is already posing a major problem to strategic planners in the predominant nations, wary of an inevitable but traumatic loss of control over the world's wealth brought about by those momentous transformations. While those globally and regionally hegemonic powers are fighting the final battles of a dying civilisation over the last great oil and gas reserves, we are silently moving into the next great technological mutation, close on the heels of the ongoing Internet-driven information revolution, one of whose effects is to raise the human ability to acquire, store and communicate information from the arithmetic to the geometric rate.

Naturally the innumerable, apparently intractable problems that will find their solution as a result of those vertiginous breakthroughs will be replaced by a host of new crises which we can only dimly perceive at present.

It can be predicted that many of the world's religions will oppose the rapid, eco-technologically inspired changes in ethical values and social rules but we doubt that such resistance, however principled, will be effective in the face of the tidal wave that is sweeping over us. It is indeed unlikely that the new opportunities made available to improve health, extend life and increase prosperity will be blocked by ethical and religious concerns simply because the temptations will be too strong, despite and sometimes alas in view of the negative, even fateful implications of those advances for the human condition.

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We ought at this point to enumerate the extremely powerful new weapons that are already in existence or are likely to be manufactured soon but will not, for want of space. However we can say with certainty that the harmful potential

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of the chemical, electromagnetic, biological and other futuristic weapons is greater and more insidious than everything we have known so far. Human nature leaves scant reasons to doubt that those capacities for destruction will be employed sooner or later, possibly cancelling all beneficial effects of the knowledge we are gaining.

Soon those ongoing breakthroughs will affect day-to-day reality with their fantastic promises

but also with their apocalyptic threats. It is too late to turn back on the path of discovery but any invention is also a metaphysical transgression. Our sole chance is to redeem the technology with wisdom, the Sanskrit '*Paravidya*', the Semitic '*Hokmah*', the Latin '*Sapientia*' which we sum up in the word 'Cosmosophy' as the '*conjunctio oppositorum*', for "science without conscience is the ruin of the soul" as the French Renaissance scholar Rabelais pointed out nearly five centuries ago.