

Frail and Feeble Mind: Challenges to Emerging Global Consciousness

Christopher B. Jones
World Futures Studies Federation
USA

Abstract

This paper addresses the possible emergence of global consciousness. It explores some of the history and origins of global brain, global mind, and global consciousness concepts. It uses an integral, Wilberian analysis to detail the forces converging toward global consciousness and those forces resistant to it. The essay also suggests that global mind and brain concepts are overlapping and related structures that are somehow tied not only to human consciousness (a la Wilber), but also to the emergence of planetary consciousness. The paper concludes with a call for an integral, Gaian perspective that incorporates co-evolutionary principles and a balance between inner and outer growth.

My religion consists of a humble admiration of the illimitable superior spirit who reveals [herself] in the slight details we are able to perceive with our frail and feeble mind.

Albert Einstein.

Introduction

This paper addresses some of the issues surrounding the discussion of emerging global consciousness. Given the amount of confusion and uncertainty about shared meanings, there is a range of metaphors that attempts to embrace or capture the meanings of such a global system. There are a number of different dimensions to the discussion, and it would be useful to review the literature and give a brief assessment of some of the challenges posed to this potential system. The small constellation of concepts related to global consciousness includes: global brain, global mind, and global soul,

among others. This paper attempts to put them in some framework of understanding.

There are converging forces working towards the possibility of a global consciousness, driving forces in conflict with it, and some neutral but contingent global forces of change as well that may determine whether it will evolve. For example, the dramatic growth of the Internet appears to bring closer the possibility of a global brain. On the other hand, the development of artificial (machine) intelligence might subvert the human role in leading such a system. And there are different schools of thought related to global consciousness: some technological, some metaphysical, and some oriented to

evolutionary biology. This paper will explore the atomizing and unifying forces arrayed across a spectrum of global consciousness components: brain, mind, soul, and psyche. Approaches to explore the issue in this paper will include the perspectives of Ken Wilber, integral futures (Slaughter 2004), and deep narrative analysis (Inayatullah 2004).

History of the Emerging Global Consciousness

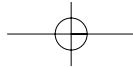
Some writers and researchers believe that the origins of the concept of the global brain extend back into prehistory (Devereux et al. 1989), but the earliest modern associations are with Herbert Spencer (society as an organism) and H. G. Wells (world brain). Global consciousness, more broadly, was the concern of Pierre Teilhard de Chardin (1959) and more recently Peter Russell (1983, 1995). While there is occasional overlap, two major schools of thought emerge in theories about an emerging global brain, a "transhumanist" and an "organic" one.

The transhumanist version of the story includes systems theory and cybernetics, global networks, complex adaptive systems, artificial intelligence, human-machine convergence, cognitive science, and other technological and mechanical features (Turchin 1977; de Rosnay 1979; Heylighen & Bollen 1996; Heylighen 2004). There has been considerable hype about this aspect of the global brain including debates in *New Scientist* (Brooks 2000), ample coverage by *WIRED*, and a major web presence (Heylighen et al. 2005). A strong undercurrent in this area is the notion of a quantum jump in complexity and cognitive systems – a coming higher level of evolution brought about through a cybernetic phase-shift – a "Metasystem transition" (Turchin 1977). The notion of a cybernetic phase shift is one clear area of overlap with the organic theorists. This area of exploration has been associated with the concept *global brain*.

In contrast, the organic stream, or *global mind*, has its roots in the work of Teilhard de Chardin (the noosphere) and is inspired by the work on the collective unconscious by Carl Jung. This stream is diverse, including evolutionary biology, environmental consciousness, spirituality, the Gaia hypothesis, global soul, and ecology of mind. Some central themes include the ideas of an evolutionary, cooperative principle (Stewart 2000; Wright 200); symbiotic, planetary consciousness and group selection in evolution (Bloom 2000); and, non-local forces in evolution (a morphogenetic Planetary Mind Field) (Wyller 1996). Arguably even more popular have been New Age and spiritual treatments that might more accurately describe the functions (mind) of such a superorganism as much as the structure (brain) (Russell 1983, 1995; Harman 1988; Elgin 1993).

Of course, given such an inherently interdisciplinary field, many theorists don't fall neatly into categories and some futurists have tried to imagine the merger of the mystical and the technological (Glenn 1989). Similarly, proponents of James Lovelock's (1988) Gaia Hypothesis appear to lean both ways, sometimes rejecting the anthropocentrism of global brain and mind in favor of broader cybernetic, ecological perspectives (Devereux et al. 1989; Sahtouris 1989). There has been a flurry of interest in the consciousness and "mind" of microorganisms. Bacteria, for example, are far more adaptive and intelligent than we have given them credit (Bloom 2000).

Roger Jones provides one filter to think about the emergence of what he calls the Global SuperBrain (1996) one axis being "SuperOrganism or Artefact" that parallels the distinction above, and a second axis that addresses the causal dynamic: "Engineer, Evolve or Emerge?" He argues that we need to be proactive in engineering it to conform to human purposes.



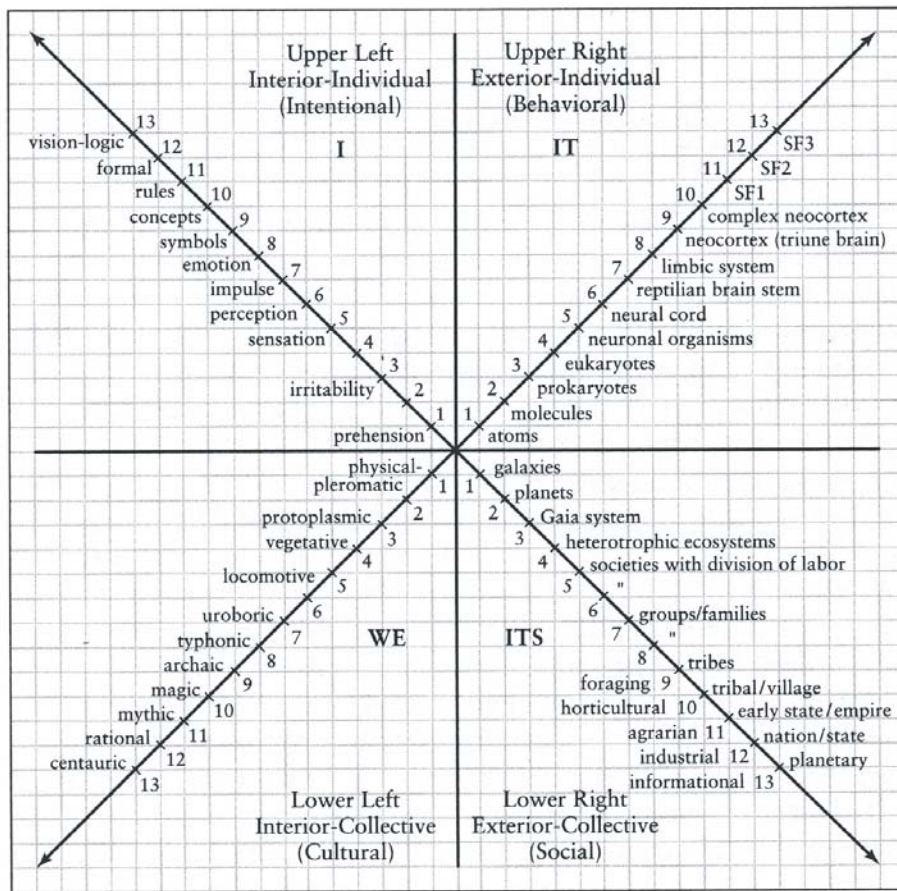
..... FRAIL AND FEEBLE MIND

Forces of Convergence (Hope)

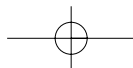
The evolutionary direction for people and planet take an uncertain trajectory in the context of a universe that – according to cosmology – is both expanding and accelerating. The overall trend for the evolution of life on the planet has been toward greater diversity and complex-

ity in nested systems. The growth of these dysentropic systems seems to balance the tendency towards disorder and decay.

To untangle the forces of convergence, the Wilberian four-quadrant perspective is useful (Wilber 2000: 70) as is his notion of types of consciousness (Wilber 2000b).



Ken Wilber's Four Quadrants



While Wilber's integral worldview is a wide-ranging *Theory of Everything*, including an assortment of matrices with quadrants, waves, streams, states, and types (see Slaughter 2004: 157), this analysis will focus on a four-quadrant perspective (above). Regarding an understanding of human consciousness, Wilber states "both mind and brain need to be included in a nonreductionistic way in any genuinely integral theory of consciousness" (Wilber 2000). Similarly, it could be argued that global consciousness needs that same sort of integral understanding, with another set of layers that take into account the planetary system and all forms of planetary life. Thus, the potentials and pitfalls leading to global consciousness can be seen in a critical integral framework.

The four-quadrant model has as its axes: the inner world and outer world compared with the individual and collective realms (Wilber 2001: 70). Slaughter has argued that futures research, particularly in the USA, has been "shallow" with a methodological bias towards the lower-right quadrant (Slaughter 2005) and similarly the debate about the emergence of a global brain appears to share this emphasis. We start from this quadrant.

Lower right quadrant (Exterior-collective). The forces of convergence are most visibly evident in this quadrant. Globalization, in general, is most obvious—technological innovation and development especially: telecommunications systems, mass media, transportation infrastructure and shipping, and technology diffusion and adaptation. It should come as no surprise that the most visible indicators of an emerging global consciousness are here in global brain development: micro-miniaturization, molecular and genetic engineering, massive parallel processing, quantum computing, neural networks (hardware), robotics, and expert systems. The sophistication, complexity and ubiquity of these systems continue to grow and spread—powerful forces of convergence. From Clarke orbit to the ground, we are bathed in a growing web of electro-magnetic and photonic radiation that reflects the emergent brain and consciousness. This electron- and photon-sphere emerges as a mediating space for the emergence of global

mind.

Upper right quadrant (Exterior-individual). The emergence of the global mind can be seen in Wilber's behavioral quadrant. A good example is how the Internet has augmented collective behavior. Recent examples of the amplification of collective human intelligence include bird census observation and data collection (Garreau 2001) and social experiments in distributed computing, such as the SETI@Home project at the University of California, Berkeley. Other distributed computing projects intend to:

- model protein folding, protein aggregation, and related diseases
- develop an advanced climate prediction model
- discover new drugs to fight the AIDS virus
- evaluate drug candidates against anthrax, smallpox, Ebola, SARS, and other infectious diseases
- crack the RC5 encryption algorithm and find optimal golomb rulers
- establish a secure grid-computing solution for cancer research and smallpox drug development, and
- discover Mersenne prime numbers (Savetz 2004).

Environmental awareness and resulting behavior are signs of hope and movement towards a healthier world. Broad trends in human behavior can be seen in the growth of organic food production and consumption, energy conservation and recycling, and experiential spirituality (Elgin & Le Drew 1996). While the mass media news has tended to cover religious extremism, there has also been growing interest in the West in meditation and yoga and other spiritual practices.

On the horizon, accelerated human genetic manipulation, for example selection for intelligence, could work toward convergence. The progress in brain-machine interfaces, neuronal implants and augmentation, and development of brain drugs all point the way to greater human-machine integration.

Lower left quadrant (Interior-collective). Environmental consciousness and global awareness are mirrored in the quadrant that captures

FRAIL AND FEEBLE MIND

the cultural context of consciousness. In spite of the structural power of Patriarchy—the imbedded sociological and cultural underpinnings of male dominance in most societies—there is a revolutionary shift underway in the rising status of women in society. This is reflected in culture change, particularly in how younger generations see the world. For example, younger generations of Americans are more accepting of diversity and more international in their perspectives. The explosive growth of air travel and global systems of advertising and entertainment, blending of music, art, and fashion, and migration patterns all seem to be strong forces of convergence toward global mind.

Cultural convergence may continue to progress if the shift in cultural consciousness envelopes the ethical and political consequences of a healthy planetary society. The implication of the UN Declaration of Human Rights and related treaties is for a profound rethinking of the economic system as it exists today and the necessary next step in global economics: to end poverty and the enormous inequities across the planet. Neoliberals and eco-revisionists (see Simon & Moore 2000) argue that things are getting better, but close to a billion people still go to bed hungry every night. Convergence along economic lines is best exemplified by the recent work on panarchy—nested complexity of economic and natural systems that result in a kind of resilience—that gives some hope for long-term sustainability (Gunderson and Holling 2002).

Upper left quadrant (Interior - individual). There are some remarkable developments in consciousness studies and the inner environmental and chemical dimensions of human experience are revealing themselves. We understand better the workings of the brain, and there is growing acceptance of a hierarchy of consciousness in the Spiral Dynamics framework (Beck and Cowan 1995). If there is such a thing as a critical mass, a tipping point (metasystem shift), it could well happen as a result of (or in synchrony with) the harmonics and resonances of sufficient number of more highly evolved global citizens. Alternatively, the work of the Global Consciousness Project (noos-

phere.princeton.edu) is to determine if the collective influence of human consciousness has an effect on random number generators.

We have more and better tools to explore and heal the psyche—at a time of greater stress and psychic pain. And yet greater numbers of humans are well nourished, healthy, and have greater longevity than their ancestors. For a large segment of the Earth's population, we have reached the post-industrial stage where achievement of higher orders of Maslow's hierarchy of needs is not only possible, but also desirable.

Forces of Resistance (Fear)

For all the hype about the emerging global consciousness, there are significant challenges ahead for humans and our planet. Breakpoints and quantum shifts could be as destabilizing as they might be evolutionary. Moreover, discontinuous change opens some doors to possibility and closes others. Given the wide number of forces of change that are required to bring about global consciousness, other forces could pull that asunder. We are, after all, operating in a universe with fundamental laws, such as the Second Law of Thermodynamics. Then there is Murphy's "Law". The point is that we are constantly working against the forces of entropy.

Lower right quadrant (Exterior-collective). As a species, our technological hubris may also be our undoing. There is a large "doom and gloom" tradition in the futures field (Moll 1991; Meadows et al. 2004) and studies of how technology might run amok or simply fail us (Ellul 1964; Vacca 1973). More recently, the stinging critique by Bill Joy (2000) of certain cutting edge technologies illustrates the concern, even within the high tech industry, that the hoopla around transhumanism and the coming "singularity" is misplaced. Machines, as in the popular movie *The Matrix*, may take on a life of their own with little concern for human or environmental matters.

Ronald Wright, in his *A Short History of Progress*, makes problematic the notion of progress and civilization in a sweeping historical critique. While many others have come

before him, he argues that the writing is on the wall regarding our unsustainable economic, consumption, and settlement patterns. He notes Joseph Tainter's three nicknames for systems problems that may lead inexorably to collapse: the Runaway Train, Dinosaur, and the House of Cards (Wright 2004: 107), particularly as they tend to work together. There are a number of potential technological catastrophes that could either subvert or delay global consciousness: cyberwar, virulent computer viruses, and the emergence of sentient machine intelligence. Even more disruptive might be catastrophes enabled by modern infrastructure, such as a global Ebola epidemic, the spread of alien invasive organisms, or the collapse of global fisheries.

From my perspective, the most likely and largest force of resistance (then) to the emergence of global consciousness would be catastrophic environmental change and mass species extinction. Environmental degradation appears to be the lesson of previous civilization collapses (Wright 2004; Diamond 2005). Recently added to the litany of potential problems receiving attention is rapid climate change (cooling) (Schwartz and Randal 2003). Also at this level of resistance is an array of non-anthropogenic natural disasters, such as massive volcanism, asteroid impacts, or nearby supernovae.

Upper right quadrant (Exterior-individual). At the behavioral level there is also a litany of troubles that stand in the way of global consciousness: genocide, greed, and gluttony. While it is conceivable that a global cognitive system may continue to evolve, how can it have reflective self-consciousness without ethics and conscience? Our current dominant economic model is competitive capitalism, but global consciousness appears to argue for high levels of cooperation and altruism. Without radical restructuring of economics, it seems unlikely that true global consciousness will develop. For example, the failure to integrate the value of women's work into national accounts leaves unaccounted for half the world's work.

Theories of technological diffusion acknowledge the role of the "early adopter" and

those on the lagging edge of the bell curve of social change. The reactionaries, neo-Luddites, and pessimists and cynics are a challenge to an emerging global brain and that doesn't incorporate them. In Spiral Dynamics terms, the red and blue political forces, still so prevalent in the world today, drag down the rest of us working toward sustainability.

Resource depletion, especially the decline of oil, and wars over water may be the global brain's undoing if the chaos of the system outweighs the coherence of a potential metasystem shift. The gap between rich and poor widens. This does not bode well for cooperation.

Lower left quadrant (Interior-collective). For the most part, the contributors to the global brain project are mostly men. Mostly Western, European and Northern. The underlying assumptions of the dominant theorists appear to be technocratic, hegemonic, hierarchical, with a belief in the certainty of "progress" and optimism. There is a monocultural quality in much of the technophile literature, particularly the transhumanist movement. That is in contrast to the more Eastern, cyclical and spiral, and organic side of the human brain discussion, which is challenged by its own attachment to the arrow of progress (de Chardin) and still rather male-oriented, theoretical (as opposed to pragmatic), and mechanistic.

Resistance will likely continue to come from dogmatic political and religious fundamentalism fighting against change and for an earlier "status quo." Culture change at the paradigmatic or worldview level may continue to be subverted by fashion of the day—the threat of superficial lifestyle change, rather than fundamental change.

Other questions at this level of analysis include: How can global consciousness occur without a collective singularity? If there is a shift in human consciousness, don't we pretty much all have to make the journey together? That takes us to the last quadrant to consider the global soul/psyche – How do we cope, individually and collectively, with the awesome global changes that are already underway?

FRAIL AND FEEBLE MIND

Upper left quadrant (Interior - individual). One of our historical species-level lessons is about the dark side of the human nature. From lynching of Black Americans, the Holocaust, Balkan atrocities, Rwanda, to scores of wars, the last century is full of examples of human cruelty. While there are signs that large conflicts are diminishing (Mack 2005), low-level conflict seems to be a continuing threat. Until our dominant culture and psychic templates can better come to terms with our dark side, we will continue to be hobbled by it. Western culture, particularly, seems adept at burying the reality of it until it escapes into full daylight. Until we can face it unblinking, we are not going to evolve in healthier ways.

There are signs that our psychic health in much of the world is not great: suicide and addiction rates, spousal and child abuse statistics, and growing developmental problems, for example growing numbers of children born with autism. How can we hope to evolve a sane global consciousness, if so many humans are not healthy? Some global brain theorists (Stein 2005) recognize that realizing that goal may be hampered by our animal nature. While we may be able to create and implement a global brain, as long as we continue to grow like a cancer on the planet, we are a just collective catastrophe waiting to happen.

Strategies for global change

Exploring the challenges to global consciousness continually brought me back to Ken Wilber and his take on consciousness: that there are different types. One may be more or less "developed" kinesthetically, cognitively, morally, emotionally, or spiritually (Wilber 2001: 45). Similarly, our species and our planetary friends and neighbors must integrate those aspects of our planetary system if it is to shift to the next level of being. From my perspective, an integration of geological timeframes and perspectives is also required: a Gaian approach. This requires not only an understanding of Gaian processes, but also adoption of deep ecology values, and abandonment of species-centrism and anthropogenic attitudes. We need

to remember that life and consciousness has evolved through co-evolutionary, cooperative strategies to ensure conditions that allow all life to thrive and flourish, not just human life.

The integral Gaian perspective understands the marriage of global soul and brain, the integration of inner vs. outer worlds and their meanings. To take global consciousness to the next level thus requires coming to terms with the forces of resistance and greater effort to understand the lessons of past civilizations (Denning 1999). It also calls for a kind of psychospiritual Unitarianism that finds a place for separate cultural identity but for more unifying myth—a new story of human cosmology that is inclusive and whole—to bind our past, planet, cosmos, and our inner nature into new global narrative to help guide us toward a truly collective global consciousness (Denning and Jones 2005). We are making headway as we discover more about the mysterious and energetic cosmos around us, but the challenge is to expand our outer capabilities and not neglect the inner work needed to mature as a sentient species.

Correspondence

Dr. Christopher Jones
Department of Social and Behavioral Sciences
Mesa State College
1100 North Avenue
Grand Junction, CO 81501-3122
Email: jones@neofutures.com

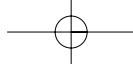
References

- Appleyard, Bryan. 2005. "Waiting for the lights to go out." *The Sunday Times Magazine*. October 16. <http://www.timesonline.co.uk/article0,,2099-1813695,00.html>.
- Bloom, Howard. 2000. *Global Brain: The evolution of mass mind from the Big Bang to the 21st century*. New York: John Wiley & Sons.
- Brooks, Michael. 2000. "Global Brain." *New Scientist*. June 24. Vol. 166(2244): 22.
- Denning, Kathryn. 1999. "Apocalypse Past/Future: *Archaeology and Folklore*, Writ Large." In *Archaeology and Folklore*. (eds.) A. Gazin-Schwartz and C. Holtorf.

JOURNAL OF FUTURES STUDIES

- London: Routledge.
- Denning, Kathryn, and Christopher B. Jones. 2005. "Historical Consciousness and Sustainable Futures." 19th World Conference, World Futures Studies Federation, Hungary, August 23.
- de Chardin, Pierre Teilhard. 1959. *The Phenomenon of Man*. New York: Harper & Row.
- de Rosnay, Joël. 1979. *The Macroscope*. New York: Harper & Row.
- Devereux, Paul and Steele, John and Kubrin, David. 1989. *Earthmind. A Modern Adventure in Ancient Wisdom*. New York: Harper & Row.
- Diamond, Jared. 2005. *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking Penguin.
- Elgin, Duane. 1993. *Awakening Earth: Exploring the Evolution of Human Culture and Consciousness*. New York: William Morrow & Co..
- Elgin, Duane and Coleen LeDrew. 1996. "Global Paradigm Change: Is a Shift Underway?" Report to the State of the World Forum, San Francisco, California. October 2-6.
- Ellul, Jacques. 1964. *The Technological Society*. New York: Knopf.
- Garreau, Joel. 2001. "Flocking Together Through the Web. Bird Watchers May Be a Harbinger of a True Global Consciousness." *The Washington Post*. May 9. Page C-01.
- Glenn, Jerome. 1989. *Future Mind: Artificial Intelligence: The Merging of the Mystical and the Technological in the 21st Century*. New York: Acropolis Books.
- Gunderson, Lance and Holling, C. S. 2002. (eds.) *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington: Island Press.
- Harman, Willis. 1988. *Global Mind Change: The Promise of the 21st Century*. Sausalito, CA: Institute of Noetic Sciences.
- Heylighen, Francis. 2004. "Das Globale Gehirn als neue Utopia." (The Global Brain as a new Utopia). In R. Maresch & F. Rötzer (eds.) *Renaissance der Utopie* (Suhrkamp, Frankfurt).
- Heylighen, Francis and Bollen, Johan. 1996. "The World-Wide Web as a Super-Brain: from metaphor to model." In: R. Trappl (ed.) *Cybernetics and Systems '96*. Austrian Society for Cybernetic Studies.
- Heylighen, Francis, Joslyn, Cliff and Turchin, Valentin (eds). 2002. *Principia Cybernetica Web*. Principia Cybernetica, Brussels. 31 October 2002. URL: <http://pespmc1.vub.ac.be/>
- Inayatullah, Sohail. (ed.) 2004. *The Causal Layered Analysis (CLA) Reader*. Taipei: Tamkang University Press.
- Jones, Roger B. "Dimensions of the Global SuperBrain." Web page created 12/27/1996 modified 1/3/1997. URL: <http://www.rbjones.com/tbjpub/cs/ai015.htm>.
- Joy, Bill. 2000. "The Future Doesn't Need Us Anymore." *Wired*. Vol: 8(4). April.
- Lovelock, James. 1988. *The Ages of Gaia A Biography of Our Living Earth*. New York and London: W. W. Norton & Co..
- Mack, Andrew. (ed.) Human Security Report 2005. Human Security Centre, University of British Columbia. <http://www.humansecurityreport.info/>
- Meadows, Donella, Randers, Jorgen, and Meadows, Dennis. 2004. *Limits to Growth: The 30-Year Update*. White River Junction, Vermont: Chelsea Green Publishing Company.
- Moll, Peter. 1991. *From Scarcity to Sustainability: Futures Studies and the Environment and the Role of the Club of Rome*. Frankfurt am Main: Peter Lang.
- Moore, Stephen and Simon, Julian. 2000. *It's Getting Better All the Time: 100 Greatest Trends of the Last 100 Years*. Washington, D.C.: Cato Institute.
- Russell, Peter. 1983. *The Global Brain: Speculations on the Evolutionary Leap to Planetary Consciousness*. Los Angeles: J. P. Tarcher.
- _____. 1995. *The Global Brain Awakens: Our Next Evolutionary Leap*. Palo Alto: Global Brain.
- Sahtouris, Elisabet. 1989. *Gaia: The Human Journey From Chaos to Cosmos*. New York: Pocket Books.
- Sanday, Peggy. 1981. *Female Power and Male Dominance. On the origins of sexual inequality*. Cambridge: Cambridge University Press.
- Slaughter, Richard. 2004. *Futures Beyond Dystopia. Creating social foresight*. London and New York: Routledge Falmer.

- _____. 2005. "Waking up after the war." *Foresight*. Vol. 7(3): 9-21.
- Savetz, Kevin. 2004. "SETI Begins At Home. SETI@home." *PC Today*. September.
- Stewart, John. 2000. *Evolution's Arrow*. Canberra: The Chapman Press.
- Schwartz, Peter and Randall, Doug. 2003. "An Abrupt Climate Change Scenario and Its Implications for United States National Security." Global Business Network. October.
- Turchin, Valentin. 1977. *The Phenomenon of Science. A cybernetic approach to human evolution*. New York: Columbia University Press.
- Wilber, Ken. 2000. *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality*. Boston: Shambhala.
- _____. 2000b. "Waves, Streams, States, and Self—A Summary of My Psychological Model (Or, Outline of An Integral Psychology)." In Ken Wilber Online, Shambhala Publications. http://wilber.shambhala.com/html/books/psych_model/psych_model1.cfm/
- Vacca, Roberto. 1973. *The Coming Dark Age*. New York: Doubleday.
- Wright, Robert. 2000. *Non-Zero: The Logic of Human Destiny*. New York: Pantheon Books.
- Wright, Ronald. 2004. *A Short History of Progress*. Toronto: House of Anansi Press.
- Wyller, Arne. 1996. *The Planetary Mind*. MacAdam/Cage Publishing.



..... **JOURNAL OF FUTURES STUDIES**

