

Futures: Past, Present, and Future:
Snapshots of a Short Retrospective
(History) on Futures Studies
by Members of the
World Futures Studies Federation (WFSF)

Edited and compiled by
Christopher Burr Jones and
Guillermina Baena Paz



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Introduction

In anticipation of creating resources and materials for a new WFSF web site in support of the 2007-2008 UNESCO Participation Programme grant (#375711 69ONG), titled “Online Futures Studies Pedagogical Resource Centre,” members of the World Futures Studies Federation (WFSF) were asked to contribute responses to three questions.

WFSF President Fabienne Goux-Baudiment sent members the following invitation in August 2007:

We are embarked on a venture to compile Federation histories from the perspective of first, second, and third generation futurists. In a Special Edition of *Futures*, histories and stories of the Federation were shared by former executives or representatives of many of the periods of the Federation's evolution [found on the wfsf.org website]. This effort hopes to build on that by developing a compendium of member responses to three items:

- 1) A biography with an emphasis on your professional futures and foresight work
- 2) An annotated list of the primary influences, individuals, literature, and theories that inform your futures work, and
- 3) What are your thoughts about the development of the field of futures studies, its successes, failures, and progress?

Twenty-four members submitted complete responses to the invitation, which are compiled below.

The results, indeed, reflect a spectrum of experiences and perspectives of first, second, and third generation futurists. Collectively, they “tell a story” of personal, professional, and planetary journeys through and for futures studies and foresight education and practice. While they are “self-selected” pieces for this anthology, they capture the breadth and scope of the field, representing not only three generations, but also sixteen different countries of residence or nationalities: Australia, Canada, Finland, France, Germany, Hungary, Iran, Israel, Italy, Japan,

Mexico, the Netherlands, Spain, Sweden, the United Kingdom, and the United States of America. Many contributors are consultants, or work for non-profit organizations, and roughly half are academic futurists.

As a resource for those who may be new to the field, the selection provides a large body of the central theories, streams of thought within futures studies, and a rich source of prospective literature and links to our body of knowledge. For those well acquainted with the field, the contributions are a benchmark for a history of futures studies from early in the 21st century. For “newbies,” it should not be hard to tease out the influence of researchers, thinkers, and teachers such as Aurelio Peccei, Donella Meadows, Alvin and Heidi Toffler, Johan Galtung, John and Magda McHale, Jim Dator, Robert Jungk, Eleonora Masini, Oliver Markley, Sohail Inayatullah, Richard Slaughter, Simon Nicholson, and countless others who have had an impact on the Federation and futures studies since the late 1960s. More seasoned practitioners may note the influence of past and present academic futures programs, for example, Budapest, Hawaii, Houston, Leeds, Swinburne, the Sunshine Coast, Taiwan, and Turku. Also in the background are the nearly two-dozen WFSF World Conferences and many short courses in Andorra, Croatia, Hungary, Taiwan, Thailand, and elsewhere over the years that have left a legacy.

The selections have been edited lightly, primarily to attend to make them conform to the rubric - the three questions, above and below. The entries speak for themselves.

Contributors

Guillermina Baena Paz	Anita Kelleher
Peter Bishop	Tom Lombardo
Sam Cole	Pentti Malaska
Patrick Corsi	Eleonora Masini
Natalie Dian	Vahid Motlagh
Jenny Gidley	Ruben Nelson
Jerome Clayton Glenn	Erzsébet Nováky
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Christopher Burr Jones	Marjolein B. A. van Asselt
István Kappeter	Verne Wheelwright

Each individual entry is organized as follows:

- A. Biography
- B. Influences/Bibliography
- C. Questions Regarding the Field

Guillermina Baena Paz, Ph.D.

A. Biography

Information Sciences and Ph D in Latin American studies. She is in National Investigators System National Investigator category II. Member of Red Salud latinoamericana, Red Iberoamericana de Prospectiva y vigilancia tecnológica (RIAP), World Future Society and World Futures Studies Federation Director of Nodo Futuro México of the Network Escenarios y Estrategia para América Latina.

She is mentioned in 1999 edition Who's Who in the world, and appears her biography in Outstanding people of the 20th century del International Biographical Centre Cambridge England.

Professor since 1968 at Political Sciences Faculty, National Autonomous University, México. She was responsible of two investigation projects: Political prospective and Future Studies Lab. She has published specialized articles and 30 books, three electronics in www.nodofuturumexico.org She had participated in twelve collectives books. She was invited as prospectivist to Rosario University in Colombia, ProspectaPerú in Lima, Perú, Conference in Puerto Ordaz, Venezuela, Expert in a study in Bogotá, Colombia, and member of one tribunal about human security at Barcelona Autonomus University.

At political Sciences she designed the area of Scenarios Construction I and II, and the courses Political Prospective, and Social prospective techniques. For the first time in Mexico included in postgraduate courses: Future Studies Lab, Prospective Intelligence and Futures Vision.

She is the manager of Permanente Seminary of Prospective Studies, Its about formation of professors, students as prospectivists. She has imparted courses in Sonora University, Communications and Transports Secretary, State Council of Guerrero, in Public Administration National Institute, Queretaro Autonomus University, National School of Professional Studies, Aragón, Eleven Channel of television, Baja California Autonomus University, Puebla University, Oaxaca Benito Juárez University.

Since 2003 is **Director of Nodo Futuro México**. author of the book *Political Prospective* and is general editor of the magazine *Prospectiva construyendo futuros* free consult on line (www.nodofuturumexico.org). Also is editor of the Serie *Working Papers (until now with five numbers)*, author of. Number 4 “Aplicaciones de la prospectiva a la política” and number 5, “Técnicas de prospectiva social”.

Themes about Human security and basic emotions or emotional capital focus in prospective view are investigations published in two electronic, collective, international books. She also wrote *Prospective thought construction* (ed, Trillas).

Every year she organized Prospec the future studies event. In 2006 organized Foro Internacional de tablero de comando y prospectiva estratégica and International Encounter Prospectiva Migratoria. She wrote and directed Radio futuro series, 25 programs on the internet.

B. Influences/Bibliography

- Jordi Serra
- Enric Bas
- Jim Dator
- Eleonora Barbieri Masini
- Arturo Montañana
- Fabio Grobart
- WFS congress
- List of WFSF

C. Questions Regarding the Field

I think A NEW TREND is emerging in Latin America we call it Constructive prospective. - critic prospective before - the slogan could be “Prospective with everybody for the welfare of everyone.” Then we are thinking about we have not a colonized future and about social prospective. I believe in a collective brain: What if we think if we believe in us, in building our own destiny in freedom, power of decision and action? What if we are stronger than the manifest destiny and more than the self realized prophecies? We can decide our preferred future. We believe that utopia could be possible...

First with **prospective intelligence** is a development of our capabilities: emotional, intuitional, collective, social, personal, interpersonal, musical, spatial, mathematical, linguistic, corporal, sensorial

Second: **break paradigms, change of attitude, to be proactive.**

Then, in third place, think:

- ***What would happen if...?***
- ***Why not...?***
- ***We already have a NO, let's go for the yes***
- ***Always look at the bright side of life***
- ***Find your grail***
- ***We are not dead yet***

Peter Bishop, Ph.D.

A. Biography

I can't really say that my journey has been “as a futurist.” It would be more accurate to say “My journey towards becoming a futurist.” In other words, I always find that life makes a lot more sense in hindsight than in

foresight. Though we seem to have a path laid out for ourselves, it never seems to work that way. But when we look back, the twists and turns take on a different meaning. Whether that meaning is really there or whether it is the product of our capacity to see patterns in whatever data we have, who knows? I'll leave that to those better than I.

I guess I date the beginning of my journey to becoming a futurist at October 4, 1957, the day the Soviet Union launched the first artificial satellite. I heard about Sputnik on the front page of the newspaper the next day. (How quaint—to get breaking news from the newspaper!) I was 12 at the time and was probably as interested in space and science fiction as any boy was in the 1950s. My overwhelming impression was how fast things change and how one change can upset the whole world.

The U.S. was really worried about the Soviet Union at that time. It is hard to recreate the fear of those days now that the Soviet Union has collapsed. The McCarthy hearings had just ended, and we believed that the Soviet Union just might have the formula for overtaking the U.S. in science and technology. We knew they were pouring vast sums into science and math education, that their high schools and colleges were very advanced, and now this! The threat was similar to what we thought of Japan in the late 1980s—that they had found the way to send America down the road to a second class power, the same road that Britain had traveled decades before.

Other events of my youth (The Suez War and the Hungarian revolution had just concluded the year before) finally culminated in the assassination of John Kennedy and later of Martin Luther King and Robert Kennedy. Much later, the feeling crystallized when I was walking up to UH-Clear Lake shortly after the suicide of one of the faculty members who had founded the university. The image came to me that reality was like a movie screen and that, once in a while, someone from behind would rip through the screen with a knife!

A second formative experience, in a radically different way, came in 1962 when I graduated from high school and entered the seminary to become a Jesuit priest. I was impressed by the lives of the priests and scholastics (young men studying to be priests) who were my teachers. They seemed to be doing something important with their lives, and I wanted to do the same.

My seminary class was one of the last to experience an isolated seminary experience. Today, new seminarians live close to college campuses and take classes there. We lived in the country. Ironically, it was only a few miles from my house in suburban St. Louis, but without telephone, radio, newspaper or television, and only a half-a-dozen afternoons with my family a year, it might as well have been in Siberia. (We did have electricity and running water!)

The seminary was run according to the rule and spirit of Ignatius Loyola, the founder of the Jesuits. Ignatius was a Spanish gentleman who founded the order in 1521. For all intents and purposes, we were living in an institution that had been created in the Renaissance and had stayed largely the same ever since. Many years later, I came to realize that I had participated in a form of “time travel”—leaving a middle-class, Midwestern life in the 20th century, living four years in a 16th century religious order, and returning again to the 20th century. I suppose those who live for long periods among indigenous people might have the same experience.

Since then and, I believe, because of that experience, I have been fascinated with the incredible social change of the last 400 years—the really big changes like the Protestant Reformation, the invention of the scientific method, the rise of industrial society, democracy, individualism and the rest. So when futurists claim that the Internet is the biggest change in human civilization since the factory, I go, “Whoa, wait a minute! Do you realize how much change you are talking about? Everything changed then—religion, knowledge, work, government, culture. The Internet is important, but, in my experience, not the same magnitude at all.” Today my course on Social Change is an exploration of those really big changes and the various ways we explain them to ourselves.

The third major event in my journey (at least as I reconstruct it here) was a few books I read in the late 1960s and early 1970s. The first was Marshall McLuhan. I don’t even know which book it was, but he impressed me with the power of technology to change society. And he was talking about television; computers were still room-sized machines. I was preparing to go to graduate school at the time in physics, but the Jesuits thought I needed a year to teach for a year first. During that year (1968-69), I switched from physics to sociology while I watched the world change right before my eyes—civil rights, Vietnam, rock and roll, drug culture, men walking on the moon. That seemed a lot more interesting than bouncing electrons off each other in a cyclotron, and it has been.

I was a student of social change during my graduate school at Michigan State (1969-73). While I was opposed to war, poverty and discrimination like most people at the time, I didn’t have the courage to really put my body on the line. Rather I hung on the periphery, watching others create change. My Master’s thesis was a survey of students on their way to Washington DC to protest the war. For my dissertation, a colleague and I trained a group of citizens to assert their rights in running a health planning agency.

There has not been a time like that since then. We thought we were changing the world; we thought that things would never be the same. And they haven’t; and yet they have. We are more sensitive to the cost of war today than we were then, and to civil rights and discrimination. But powerful people still run the world, and they don’t do so badly that we rise

up against them. The future turned out differently than most people expected, but it still looked remarkably similar in many ways.

I also read the optimistic Toffler (*Future Shock*) on how computers would create a third wave of fundamental change and the pessimistic Meadows *et. al.* (*Limits to Growth*) on how the current economic system would use up and despoil the planet. I couldn't tell who was right, nor did I try. They both seemed like plausible futures, and yet they were both right and wrong in their own way. We have yet to realize the utopian information society that Toffler predicted, yet a lot has changed in how we live and work as a result of information technology. I was using punch cards to run computers when I read Toffler, now I'm typing on a personal machine that is probably more powerful than the university computer was then. The Limits to Growth grew out of the nascent environmental movement and predicted short-term catastrophe which clearly didn't occur. But the environment is cleaner and safer now than it was then and a thirty-mile per gallon car was a pipe dream at the time. Out of all this, then, I drew the lessons that 1) social change was real, 2) it could happen suddenly, 3) the real outcomes were unpredictable, and 4) a lot still stayed the same. And all that before I saw UH-Clear Lake.

I went to teach sociology at Georgia Southern College (now University) right after graduate school. I had left the seminary in graduate school, but retained my desire to follow my teachers as a teacher if not as a priest. I didn't learn much sociology in graduate school. (With all that going on, who could?) But when I thought about standing up in front of 30 bored undergraduates, I had to figure out what I was going to say and do so as not to embarrass myself or them with my incompetence. I specialized in Social Problems, as close to social change as I got during those years and for many thereafter.

I was recruited to UH-Clear Lake in 1976. A member of the American Sociological Association was running a team of sociologists from southern colleges and universities in a project to improve undergraduate teaching in sociology. He came to Clear Lake in 1974 and had me apply two years later. They didn't teach Social Problems because Clear Lake is an upper division school and Social Problems is a sophomore course. So I took over the research and statistics course for psychology and sociology students.

Not much social change or futures studies in the classroom, but a lot outside it. The first faculty at UH-Clear Lake were all people like myself, rejects from the late 60s and early 70s who had been frustrated by the inertia of the academy. We were going to do something different, start a university unlike any other, offer all those cool courses we wished we could have taken—interdisciplinary, experiential, useful! Our visionary dean encouraged our dreams, and we set to work. It was the 60s all over again! Until...

You don't want to know the details, but by 1981 or so, the dream had died. The university was well on its way to becoming a decent, regional university serving the southeast part of Houston and the greater Gulf Coast. We may have been revolutionaries, but the rest of the faculty, almost all of the students, certainly their parents, their employers, the university administration, the State of Texas, none shared our revolutionary zeal. They wanted a decent, regional university where they could get a decent education and graduate with decent degree so they could get a decent job and get on with their lives. So much for social change at the university level!

At about that time, I had pretty well conquered the research and stat course (it was good!), but I didn't want to become a full-time statistician. I had been attending faculty meetings of a strange group of faculty in futures studies, and I approached them one day with the request to teach their course in forecasting. Even though graduate schools in social science don't teach forecasting (Do you believe that?), I thought I could do it with a little preparation, and I was right. It wasn't t-tests and ANOVA, but it was still making inferences using observations and data. I had a little trouble getting a handle on this "alternative futures" approach (I thought they were just copping out by not picking one future as the "right" future!), but eventually I came to embrace that to.

Twenty years later (Hasn't anything happened since?), I've been the teaching in and, on and off, been the chair of this program in Studies of the Future at the University of Houston-Clear Lake. It has been, in every way, the reason I chose sociology over physics; it has allowed me to look deeply into society as it changes; it has given me the opportunity to carry on a full university life and maintain a private practice of speaking, training and facilitation that I would never have achieved with sociology or with physics. It has given me the chance to help people understand the historical context they are in, to anticipate likely and unlikely changes they are facing and to influence those changes to create a somewhat better future than they would have absent their effort.

My only regret is that I wish that more people were pursuing futures studies as an academic discipline. (Our first dean, Calvin Cannon, quipped at our initial meeting, "We teach the past don't we? Why can't we teach the future, too?") When I joined up, the futures program had three or four faculty who were teaching regularly in the program and another half-dozen teaching occasionally. Now I am the only one. There were identifiable futures programs and faculty members at the Universities of Hawaii, Massachusetts, Maryland, Akron, Minnesota, Southern California and Portland State. Now the Hawaii and Houston programs are the only ones, and both are staffed by a single, aging futurist. On the other hand, there is a relatively new program in Melbourne, Australia, and parts of programs may be springing up, like the one here at Regents University.

And all the while, the ideas that futurists pioneered 30 years ago are becoming acceptable, even common, today. The term “futurist” is now accepted where it was a term of ridicule. People talk about visioning and scenario planning. Strategic planners and strategists now realize that their plans have to take a changing world into account. Graduates of the Clear Lake, Hawaii and other programs have formed the new Association of Professional Futurists, an organization that will give a home to the next generation of futurists just as the founders retire. So go figure—the perennial death and rebirth in this strange cycle we call life. (Presented as “My journey as a futurist,” Regents University, 8/30/03.)

B. Influences/Bibliography

My early influences were:

1. Marshall McLuhan - how much television could change society. Influenced me to choose sociology with an emphasis on social change for my graduate studies
2. Alvin Toffler, *Future Shock* - An engaging way in which IT would transform society
3. Donella Meadows, et. al., *Limits to Growth* - a cautionary tale that growth could not continue indefinitely.

Those were all “distant” influences. The two futurists who influenced me the most “up close” were -

1. Chris Dede, now professor of instructional technology at Harvard University. Chris was one of the two faculty members who established the futures studies program at UH-Clear Lake. He included me in delivering a series of workshops for IBM in the late 1980s. There I learned to present information in a futures format.
2. Oliver Markley, now retired. Oliver came to UH-Clear Lake in 1978 from Stanford Research Institute where he worked with Willis Harman, Peter Schwartz, and others. Oliver and I had very different approaches to futures studies. His was highly visionary and intuitive; mine more logical and empirical. But I came to appreciate and respect his approach as a different way to do futures studies.

C. Questions Regarding the Field

He references Andy Hines, “The Futures of Futures,” Scenario Salon Workshop Report of the Association of Professional Futurists, February 28-March 1, Austin, TX, which can be found in the full UNESCO Sanctuary Report.

Sam Cole, Ph.D.

A. Biography (CV)

ACADEMIC POSITIONS:

- 1993-97 Professor, Department of Geography, School of Social Sciences, State University of New York at Buffalo, NY 14261 Tel: 716-645-2722 (joint appointment with Department of Planning).
- 1987-on Adjunct Professor, Department of Geography, School of Social Sciences, State University of New York at Buffalo, NY 14261 Tel: 716-645-2722 (joint appointment with Department of Planning).
- 1983-on Professor, Department of Urban and Regional Planning (formerly Environmental Design and Planning), School of Architecture and Planning, State University of New York at Buffalo, NY.
- 1971-81 Senior Research Fellow engaged on Social and Technological Forecasting Program, Social Science Research Council, Science Policy Research Unit University of Sussex.
- 1968-69 Post Doctoral Research Fellow in Theoretical Solid State Physics at Cavendish Laboratory, Cambridge University; Research Assistant to Nobel Laureate Professor P.W. Anderson.

PROFESSIONAL POSITIONS

- 2002-3 Sabbatical leave from University at Buffalo. Advisor to Aruba Central Bureau of Statistics and Department of Tourism.
- 1988-93 Director, Center for Regional Studies, State University of New York at Buffalo, NY 14214.
- 1981-83 Director and Senior Economist Planner at the Institute, of Applied Economic Analysis, Aruba.
- 1978-81 Visiting Fellow of the United Nations Institute for Training and Research, New York, and co director of UNITAR Project on Technology, Distribution and North South Relations.
- 1969-71 Senior Scientific Officer, United Kingdom Department of the Environment, Urban Planning Division.

OTHER ACADEMIC APPOINTMENTS:

- 1999-2002 Senior Fellow, Center for Urban Studies, University at Buffalo.
- 1986 Appointed Chair of Economics, University of Papua New Guinea.
- 1984 Appointed Professor, Department of Technology and Social Change, University of Linköping.
- 1983 Associate Fellow at Institute for Development Studies, University of Sussex.

EDUCATION AND EDUCATIONAL SCHOLARSHIPS:

- 1970 Lancaster University Operations Research Summer Program
- 1968 UK Science Research Council Post-Doctoral Scholarship at Cambridge University
- 1968 Doctor of Philosophy, University of Sussex. Theoretical Solid State, Physics. Advisor, R.E. Turner.

- 1967 NATO Scholarship to Advanced Theoretical Physics Summer School, Les Houches, University of Grenoble.
- 1965 UK Science Research Council Doctoral Science Research Council Scholarship, Theoretical Physics.
- 1965 Bachelor of Science (Hon, Physics), Imperial College, London; Associate of the Royal College of Science.
- 1962 Open Scholarship to Imperial College, London
- 1962 Open Exhibition to Queen Mary College, London

B. Influences/Bibliography

- My grandmother was a suffragette, my mother marched against the bomb...
- Since I was always good at math as a child, I insisted that my questions should be answered with a number! Nothing has changed!
- My first awareness of the Future came through listening to Journey into Space, a radio harbinger of Star Trek.
- At Imperial College, as a physics student, prompted by a young professor Sinclair Goodlad, with several friends (to this day) I co-founded the H.G. Wells Society, sparking my interest in challenging questions of present and future.
- Later, as a post-doctoral fellow in the Cavendish Laboratory at Cambridge, I read Robert Jungk's book Brighter than a Thousand Suns - the story of the physicists who created the nuclear bomb. Inspired in part by Bob's work, and others, I left physics - to avoid becoming part of the arms race.
- I traveled to India by Land Rover with sundry companions. As we traveled Chaucer-like across the world, the places we visited became stranger, and our little band more fractious, and I developed a better appreciation of the diversity of human life and the magnificence of the history and cultures beyond the Western world. This contributed greatly to my later interest in international development
- My first professional job was in the UK Department of Environment (then Ministry of Housing and Local Government) during the Wilson "White heat of the technological revolution", Paralleled in the US by Hubert Humphrey's "Moon ghetto metaphor" - that the methods of the natural sciences would solve the problems of the inner cities. I learned social science and the practice of public policy the hard way. When my statistical analysis suggested that family life and work satisfaction were far more important than the built environment, the project was abruptly closed.
- I joined the Sussex University forecasting group STAFF (Social and Technological Alternatives for the Future) where my first task was to help review and critique the Limits to Growth study of Jay Forrester and the Meadows at MIT.
- I believe that the Sussex team contributed to futures studies by bringing together an eclectic group of people to develop a comparative and

integrative mode of analysis, whilst maintaining a high level of scholarship across several disciplines. .

- This Sussex opened many avenues for me and the Sussex group and we became involved in European, United Nations, and independent futures projects world wide, including several through the WFSF as a member of the Secretariat.
- To date I estimate that I have consulted to, or worked in about 20 UN agencies, and in a greater number of developing nations.
- I would say that whether a particular study included the word “futures,” this cumulative experience influenced practically every piece of work, either directly in terms of the methodology, or indirectly by proving the philosophical context for the study.
- At Sussex, we had experienced mentors, Chris Freeman and Marie Jahoda, leading our team, able to position our work in the wider international futures debate.
- With the inspiration of Ian Miles, we moved to develop less quantitative scenario methods, influenced by the French prospective futurists such as Bertrand de Jouvenel, as well as strategic planners such as Herman Kahn.
- When I joined the World Futures Federation, I was impressed by the imagination of futurists such as Galtung, the McHales, Masini, Dator, Elmandjra, Thapar, Markovic, and others. When I became involved with the United Nations, I was deeply influenced by Philippe de Seynes in UNITAR, Julien Gomez in DEASA, Hans Reiff in UNESCO, and Lalan Mubiala in UNFPA, and equally so on missions overseas and by political refugees to Sussex from Latin America, including Amilcar Herrera and Osvaldo Sunkel.
- I have always attempted to maintain a multi-disciplinary perspective presenting papers at e.g. economics, anthropology, futures, geography, planning conferences.
- Since 1985, I have alternated my efforts across community-level projects (e.g. inner city, rural areas mainly in the US, and island, national and global studies).

Personal biography with an emphasis on international professional futures and foresight work:

(Typical international professional projects carried out as a consultant or funded by an international agency are listed. Other work applied futures-like methods to local problems.)

- 1974 Technological Forecasting and Problems of Dependency Some Questions Relevant to the Outcome of the Present Materials Crisis. Background paper for UNCTAD/UNEP Expert Group on Shifts in Technological and Economic Structures, Geneva.
- 1974-5 Member of the Work Team of the Europe Plus Thirty Project, European Economic Community, Directorate of Science and Technology.

- 1975 The Wider Implications of the New International Economic Order, Background paper prepared for Secretary General's Report to UNCTAD V, Geneva, and Expert Group meeting on Environmental Aspects of Development UNCTAD/UNEP, November 1975.
- 1975 Europe Plus Thirty A Comparative Analysis of European Forecasting Studies, (1) Forecasting Techniques, (2) Forecasting Institutions. Directorate X11 of the European Commission.
- 1976 Member of the Work Team of the Goals, Processes and Indicators of Development Project of the United Nations University.
- 1978 81 Member of the Technical Working Group of the ACC Task Force on Long Term Development Objectives of the United Nations.
- 1978 Consultant on Technological and Long Run Forecasting to FINEP, Brazil, 1978 Lectures at Indian Research Agencies, sponsored by the British Council.
- 1979 The Essential Needs Approach as a Strategy of Endogenous and Integrated Development, paper for UNESCO Meeting of Experts on Research on Integrated Development, Quito.
- 1979 Criteria for Evaluating Population Development Models, paper for UN/UNFPA Consultative Group Meeting on Population Development Modeling, New York.
- 1980 Director of United Nations Inter Agency Study at University of Sussex and international coordinator. Director of University of Sussex project and coordinator of sub projects in India, West Germany, Poland and Argentina.
- 1981 Consultant to United Nations Department of Economic Affairs for preparation of Third Development Decade Proposals. Long Term Development Perspective; UN New York.
- 1982 World Problems and Future Perspectives review for UNESCO of the Medium Term Plan, UNESCO Division of Social Sciences, Paris.
- 1982 Long Term Plan for Independence of Aruba; Institute for Applied Economic Analysis, Department for Economic Planning, Oranjestad, Aruba. Aruba Macro-Economic Development Plan for Independence
- 1983 Futures Studies for Planning, in A Manual of Futures Studies for African Planners, WFSF/United Nations Development Program, New York. Paper and methodological appendix.
- 1983 Member of Aruba Delegation to the Round Table Conference in the Hague (Negotiating the Independence of Aruba from the Netherlands Antille).
- 1984 Long Term Perspectives on Science and Technology for Development, co-editor of report submitted to United Nations General Assembly, United Nations Center for Science and Technology. New York/Mbabane, Swaziland.
- 1986 Consultant to Swedish Parliamentary Commission on Futures Studies Global Models and Futures Studies, Swedish Parliamentary Commission on Futures Studies, Stockholm.
- 1987 Technology and the Future after Fifty Years, Paper for the Arizona Futures Symposium, Arizona Department of Transportation, Phoenix.

- 1987 A Critical Review of Global Modeling Work and the Role of Developing Countries , Committee for Development Planning of the United Nations. Technical Report.
- 1987 Advisor on International Economy Modeling to the Working Group of the United Nations Committee for Development Planning.
- 1987 Member of UNFPA Evaluation Mission on Population and Development Planning Projects in Asia and the South Pacific.
- 1988 Consultant to UNESCO for preparation of Medium Term Plan 1990 1995. Human Resources for the 21st. Century, Background Paper for UNESCO Medium Term Plan 1990 1995, Paris.
- 1988 Evaluation Report of Regional Advisors for Population Policy and Research, Evaluation for United Nations Fund for Population Activities, Addis Ababa/New York.
- 1993 Advisor to European Community on Long Term Strategic Planning, ISPRA, Italy (September, 1993)
- 1993 Advisor to the African National Long-Term Perspectives Studies Project, Regional Headquarters, Abidjan, Ivory Coast.
- 1993 Development Strategies and Demographic Scenarios, United Nations Population Division Round Table on Population and Development, Bangkok, November, 1993. UNFPA, New York.
- 1993 Diversity and Dialogue: Towards a Cooperative and Flexible World Development: A Synopsis for the World Report on Culture and Development prepared for the United Nations World Commission on Culture and Development. Translated by UNESCO into Spanish and French.
- 1993 The Futures of Culture and Development, United Nations Conference on Culture and Development, UNESCO.
- 1995-6 Consultant to the Development Research Center of the State Council of the Peoples Republic of China, Preparation of Comprehensive Long-Term Sustainable Planning of the Yellow River Delta, (UNDP/World Bank/Agenda 21 Project)
- 1997 Advisor to Aruba Department of Education, July, 1997.
- 2001-4 Towards a Framework for Sustainable Tourism. Ministry of Tourism and Transportation, Aruba. With V. Razak. Conference Draft Submitted November 2003.
- 2007 Challenges of Integrated Foresight Analysis for the Sustainable Development. Slide Show. Technology Foresight Summit, Budapest, Hungary 27-29 September 2007.

C. Questions Regarding the Field

Much of Futures Studies has a Gee Whiz or Shock component. It would be useful to know whether Futures studies (circa 1970-80) helped resolve any of the major problems then faced (nuclear war, underdevelopment, environment, etc) and if so how - through their shock value or cogent analysis, or what?

Since the 1970s, the amount and consistency of data has improved, half-decent time series are easily accessed, computers are cheap and powerful. Two years ago, I was an introductory speaker at conference on integrated modeling (at Universities, national, and international agencies). My impression was that we still have not met the challenge of integrated models set by the Limits to Growth.

It is evident that the mindset of the industrial nations that pervaded futures studies - in academic texts such as the Ehrlichs' Population Bomb, and international agencies through e.g. Annual WB Development Reports - the idea that most other nations (especially India and China) were locked into underdevelopment. It would be wonderful to find a futures study from that era that prophesied otherwise.

The change in mindset in the development/futures community appears to be due to the influence of Third World intellectuals such as Said, Appadurai, possibly even futurists such as Nandi, Inayatullah, et al.

Since its inception, the UNU Millennium project has appeared as an embryonic global negotiating machine distributed across cyberspace feeding information to, and eliciting choices from, individuals, institutions. Is it subversive, democratic, or surveillance?

- 2008 (forthcoming) The Futures of International Tourism - Perspectives and Policy, Futures Special Issue, co-editor with V. Razak
- 2008 (forthcoming) Global issues and futures: A theory and pedagogy for heuristic modeling, Futures.
- 2002 Dare to Dream - Bringing Futures Studies into Planning, Symposium on Futures Studies in Planning, Winner of Best Paper, Journal of the American Planning Association.
- 1997 Time and Space: Geographic Perspectives on the Future of Culture and Society, Futures Special Issue, co-editor with M. Batty.
- 1996. Futures Free Fall - A Modeler's Tale, Special Issue Futures What Futurists Think, , editor, S. Inayatullah.
- 1995 Anthropological Perspectives on the Future of Culture and Society, Special Issue Futures, co-editor with V. Razak.
- 1993 The Future of Industrialization, Special Issue of Futures, co-editor with R. Florida.
- 1990 Paradigms of Human Development, Special Issue of Futures, Coeditor with K. Yamaguchi.

- 1987 *Global Models in Futures Studies: The New Agenda*, Herzog and Budtz, Stockholm.
- 1984 *Worlds Apart* (with I. Miles). *The Future of Global Equality*; Harvester Press, Brighton; Rowan and Allenheld, New Jersey.
- 1978 *World Futures: The Great Debate* (with C. Freeman and M. Jahoda). Martin Robertson, London. Also published in the USA by Universe Books, New York.
- 1973 *Thinking about the Future: A Critique of the Limits to Growth* (with C. Freeman, K. Pavitt, and M. Jahoda), Chatto and Windus, London. Also published in USA as *Models of Doom*.
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Patrick Corsi

A. Biography

Twelve years in-the-large in industry (IBM Corp., San Jose, CA; IBM France, La Gaude, a whole start-up cycle with COGNITECH in artificial intelligence, Paris; THOMSON-CSF's subsidiary SYSECA, Saint-Cloud) tasked with research, product engineering, teams and projects management, and adviser to President roles. Nominated member of *College Scientifique et Technique de THOMSON-CSF*, the Group's Corporate permanent Think Tank by President & CEO Alain Gomez upon its creation in 1989 (totalled 105 members worldwide). Ten years at the European Commission in Brussels in charge of growing and monitoring the European portfolio of R&D projects in artificial intelligence with links to venture capital.

Since 2001, an entrepreneur focusing on the innovation engineering processes and methodologies for companies, institutions and agencies and in developing entrepreneurial skills for managers. He is the director of **IKBM**, a consulting firm dedicated to bridge value from R&D and emerging markets that he founded in August 2004. Since 1986, provides expertise to European Commission in the capacity of reviewer and evaluator. Animator and rapporteur of a number of workshops on: ICT For Environmental Sustainability and Growth, Eco/Energy Efficiency (with input to Club of Rome), FP7 eGovernment Research Stakeholders Consultation Workshops with scenarios by 2020 for citizen empowerment, innovative services and technologies for eGovernment, linking R&D to policy impacts, etc. Marquis Who's Who in the World 1991, in Engineering 1992; a core member of European Innovation Relay Centers Think Tank over 2003-2004; a member of the World Futures Studies Federation.

He has taught pattern recognition, speech recognition, the marketing of advanced technology, innovation, the development of European Union at seven European universities and a commerce school, even since a student in 1977. An associate professor at ISTIA Institute of Science and Technology for Engineers, University of Angers (France) since 2000, a frequent speaker and a coach for young entrepreneurs.

He has contributed to six books on enterprise innovation, marketing advanced technology, dynamic risk management in energy and finance and tackling complexity at decision-making level at corporate and institutional levels.

Education: an ENSIMAG computer science Engineer with a Ph.D. from Institut National Polytechnique de Grenoble in Génie Informatique in 1979; a Maîtrise de Mathématiques from University of Marseilles in 1974. A 2003 Solvay SME Business & Entrepreneurship alumnus, Patrick lives in Brussels and can be reached at patrick.corsi@skynet.be.

IKBM SA offers a comprehensive set of innovation business development services along three main axes:

- 1) **Deploying innovation engineering and consultancy** through the ad-hoc **KINNSYS methodology** (Knowledge-based Innovation Systems & Solutions) for growing and fostering the innovation capacity for an organization (incl. auditing innovability capability and maturity, scoping innovation potential, removing brakes to innovation, piloting innovations, progressing scoreboards, engineering business models, etc.).
- 2) **Extracting and generating value from R&D** results in technology intensive contexts. Includes the elaboration of marketing plans for companies and policy impact methods for institutions. Aims to improve competitiveness through seeding new market spaces; specialists of the Blue Ocean Strategy.
- 3) **Support and accompaniment measures** through international business development, technology intensive missions, and wide-ranging business networks. The approach is through awareness-rising, educating, publishing, training, animating, coaching, mentoring, and linking up with communities on global innovation issues. All activity is underpinned by long-standing expert thematic expertise (ICT, energy, eGovernment...).

B. Influences/Bibliography

My futures work originates from long time thinking on the dichotomy relationship between time and the notion of present. Does a future exist outside the mind of the one who thinks there is one? That was a compelling question that I wanted to resolve since adolescence. My intimate answer is a clear “no”. Linear thinking, sequential models have long invaded our school programs, books and dissertations and, unavoidably, inoculated our minds and impacted our in-ability to “see” things. However, under the pressure of the networked global society, this approach faces increased difficulty. A network knows only network-time and our global planetary village learns to live “now” (see the youth). The decision-making process of man is about *constantly resolving the tension between the present and its potentialities*, not the consequences (which would reveal a voluntary causal bias). The constant reinterpretation of possibilities transcends the linear models and

calls for a new way of doing “futuring”. The current “crisis of foresight” is due to our indulging in forced extrapolations that sound OK to the mind; and the apparent crisis of WSFS in search for a new identity resonates at it. We need a new Foresight branch that unfolds the present, not *from* the present *to* the future. Classical foresight freezes scenarios and then forces a normative opt-out; while future foresight will need fluidity in the present and letting it unfold dynamically, recreating it permanently. Complexity sciences do help, although few have dared applying them yet, as this seems difficult. The unfolding gradient is the scenario trajectory that we individually or collectively take, depending on our choices, will and... courage.

I was a former research in artificial intelligence, a field I worked in for 20 years in several countries and technical and managerial capacities; have been struck by the re-creation capacity every 10 years since 1950 of Silicon Valley where I lived and by an eclectic number of modern sources on mental processes such as: “On Intelligence” by Jeff Hawkins, “The Power of Now” by Eckhart Tolle (difficult but key); “Power vs. Force” by David Hawkins, and the study of consciousness as well as resolutely engaging into entrepreneurship. I also have lots of books on innovation and believe we collectively reached an evolutionary level that compels us to pass by a curious gateway: the acceptance of transcending reason. The nations that resist are in crisis.

Even for late Gaston BERGER, the only impact humans can have on the future is to create it - in business terms we say it’s an “opportunity”! Any instant is another big-bang to exploit from nothingness, that only our limitations and “laziness” prevent us to activate fully. Should we succeed in this, we would theoretically produce enthalpy instead of entropy (see thermodynamics’ first law). A question is the reversibility of Futuring.

The methodology I pursue is a threefold process:

- The art and science of formulating and asking (the right) questions. This very ancient approach is now much underdeveloped in our modern training programs. I have developed a graphic method tool called the Magic*Eye in 1993 which comes to publication now and performed a deep investigation of the mind process of Leonardo Da Vinci (based on several international pundits’ writings and my own repeated investigations at Vinci, Tuscany) that is now ready for publication.
- Then the polarizing of the Now by a specific problematic (e.g. the question at hand above). I call it the Rooting method as it reverses a *possible future* back into its generating process (the becoming). A forthcoming publication is expected over 2008 that spans a number of disciplines (psychology, marketing, engineering).

- Finally, the dynamic reinterpretation of the present onto itself. The work is mainly based on a first treaty work on reformulating complexity sciences for field practitioners (*La complexité dans les processus de management et de décision*, Hermes Sciences Publishing / Lavoisier, Paris, March 2006, 420 p.). Then on a second book for economists, financiers and managers (*La gestion dynamique des risques économiques ; Anticipation et maîtrise des changements*, Hermes Sciences Publishing / Lavoisier, Paris, December 2007, 250 p.) (co-working with Pierre Massotte, ex IBM Academy of Technology).

C. What are your thoughts about the development of the field of futures studies, its successes, failures, and progress?

To align with modern trends, three lines for Foresight evolution seem required:

- “*Foresight for Everyone*” - democratizing & tooling foresight with PC based tools.
- “*Global and Levelled Foresight*” - addressing multi levels and their correspondences from personal to local to regional up to supranational.
- “*Organic Foresight*” - enhancing interrelationships and their dynamics between concepts as much as concepts themselves.

In order to rejuvenate the old discipline of Futures Science I see three major barriers to evolution to overcome:

- 1) We lost traction on the mind and imaginary of people.
- 2) We entrenched into silos of knowledge ossifying our outcomes.
- 3) We de-positioned with the deep presence with our selves.

Here are a few comments on each barrier.

- 1) **Metaphoric Fiction.** I wish a (science, literary etc.) fiction for children and adults that be both narrative and metaphoric, pretty much as e.g. *Alice in Wonderland* shows. One problem is that we lost our link to “magic-as-future”. But we now have suitable technology. As a member of the Presence & Innovation ENSAM Laboratory in Laval, France and a co-founder of the companion virtual reality lab in Port-au-Prince, Haiti, along with teachings in virtual reality, I see virtual reality as an approach that re-absorbs man into his “intense” present. A present that he possibly lost, as 20th century technological developments took over, drifting him away from his harmonic, wholeness legacy. Fact is that man is essentially a mostly perceptive being who restrictively believes he reasons above all and despite his perceptions; man first of all *perceives*. To harness a future, evolution now requires to transcend reason (see Henri BERGSON). The way is to use imagination, sensation, perception (interpretation), adaptation, consciousness.

- 2) **To cross-link our ontologies.** The supremacy of (mono) disciplinary wall specialties will be over soon: it is important to build structural diversity, bi-disciplines with some degree of systemic thinking. As examples: philosophy and foresight; marketing and R&D; biology and ethics. Our students need that sort of ambidextrous thinking that will help them capture the value at the intersections and carry it onto ever new domains. The era of humanists is over while mono-specialists are gradually replaced by digital expert systems, encyclopedia and ontological semantic platforms and other engineering tools. Society will cement itself with bi- and n-bricks that contain that dual element: the link. And human networks build on links, not on flat nodes!
- 3) **To reconcile present with future and vice-versa.** The main challenge of FS resides in providing the link between present and future. For man-in-the-street FS talks about the future, so detaches from the present and gets abstracted at best, frightening at worst. Its major failure has been its inability to communicate to layman and to support him at daily level. As local and national Governments buy reassurance by plotting future scenarios, the scope is evidently to reduce the inherent chaos of possibilities to a workable set; yet ontologically, this eventually creates fragmentation and paucity, not abundance.
- 4) **Is there an umbrella for Futures Science out there? (suggestions)** The new FS is poised to bring about a new art and science of change, encompassing the classical change management, business process reengineering, total quality management, etc. Given man's growing interrelations at individual, organizational and environmental levels, cooperation becomes a necessary part of any development or sustainable equation, bringing afore both coopetition (cooperative then competitive) and comperation (the reverse) models to name just a few.

"The code of FS ethics is *"keep up to the inherent complexity level"*, the FS rule *"monitor that complexity"*, and the FS diploma *"create abundance in all respects"*. Because our collective knowledge has followed a quantitative exponential growth, we likely enter a non-notional era, a dual era of processes, of methods -of becomings. Futures Science is definitely *the science of becoming*, not of thinking the future: the future starts *now*."

Natalie Dian, MS

A. Biography

In 1983, I was finishing a three-year stint as an internal organization consultant at Transamerica Life Insurance Co. in Los Angeles, California. I stumbled upon a notice telling of a futures society meeting and something about it sounded interesting. I took a colleague with me and we went to the meeting. I don't remember much about it except to say that there was stimulating discussion and I promised myself to follow-up on it when the

time was right. You see, I was leaving my job for a trip around the world. I planned to be gone for one year and had no plans for what I would do when the year was up. The non-plan evolved into a move to Sweden. Following up on my earlier promise to myself, I became a member of World Future Society and reading everything I could get my hands on about futures studies, trends, paradigms and methods. Ten years later I had a chance to put what I had been reading into practice. Along with a partner, I was able to start a one-year course in Futures Studies and personal development. The course took two years from selling the idea to course start. We got funding to work with young people 18-27 due to high employment levels in that age range. Most people don't think of Futures Studies and personal development together, but we felt that in order to think about future possibilities one had to know a lot about one's self. Thirty-five participants struggling to accept personal differences while creating scenarios and visions of the future focused us on participants need to articulate their values. At the end of the year the outcome was very positive and we were awarded funding from the European Union for two additional courses. We called it "Framtidsbygget®" or Building the Future. We worked with a group of women and later with a gender mixed group in the age group 18 - 65.

There was interest from another education organization resulting in an 11 week training program for six potential project leaders in the model Framtidsbygget®. The results were two projects run by our trainees in different parts of Sweden. My knowledge grew with each course in futures studies as I presenting futures concepts, helped individuals cope with undesirable possible futures and with negative scenarios that popped up during discussions. The list of learning was overwhelming.

Framtidsbygget® was a hard act to follow and it took some time for the stimulation of the ten year period between the early nineties and end of the century to sink in. Consulting, training and writing kept drawing me in different directions. The model Framtidsbygget® was applied to future of vegetarianism, a vision of the future of zoos (an analysis), the future of the equestrian based businesses, the future of a county, the future of adult education, and the trend of socially related illness, among others.

My interests were wide and varied, but one idea kept nagging at me. How can one reach people who never thought in terms of future possibilities, long-range thinking, systems or complexity? The subsidiary question became "What percent of the general population has natural foresight abilities?" The result became a questionnaire which was tested for several years both in Swedish and then in English on the Internet; the idea being that questionnaires were "neutral" and participatory. They presented a chance to wed an individual's own descriptions of her/his self with theories that might seem abstract and unrelated to the bottom line activity in which most people are involved. The questions were a marriage between futures studies and innovation diffusion theory. The goal was that the questions themselves

raise awareness and the analysis pages that assessment takers receive afterwards might contribute to self-development. Additional assistance from a trained consultant could be of use to companies, organizations and government agencies. After summer courses at UHCL with Peter Bishop and his learned colleagues, I decided to focus all my time on development of the questionnaire. The result is Foresight Styles Assessment (FSA), a tool for professionals working with change and futures thinking. FSA defines six styles all of which form a system or change theory closely related to Innovation Diffusion Theory. Futures Studies is about desirable futures and FSA shows individuals their role in all kinds of change both desirable and undesirable. I like to think that FSA can help people to discern what change they desire and that they wish to avoid and apply their personal change profile to create or defeat those futures. FSA also shows the degree, in the form of an index, to which one thinks long-range, or like a “futurist”, which then can be compared to all other assessment takers. There is an assumption among futurists that the world would be better off if everyone thought like us. The truth is that we are not all endowed with foresight capabilities. FSA shows that there is room for everyone if we can learn how the system works.

As I grow in the field of futures studies and as chaotic patterns begin to reveal the current paradigm shift, I feel that it just as important to empower people with the ability to put their visions or scenarios to the test. Knowing more about their roles in change is just one small way to do it.

Another expression of my futurism is not professional, but could be considered more in the realm of the professional meeting the personal. I was introduced to the concept of Future Generations when invited to Japan with 48 other futurists to discuss the topic in late 1990's. The combination of leaving something to future generations and living according to my beliefs led me (along with my husband, Leif) to build a house that embodies as many environmentally sound principals as possible. As I write this the plans are being drawn up. Any such project is subject to both creativity and limitation and it will not be the perfect dream, but it will be a sound home for those who come after us, and hopefully one that can be updated as innovations come from the laboratory and become priced for average homeowners.

B. Influences/Bibliography

I was first inspired by alternate views of the world and books that described new paradigms (see below). Books on the “new” sciences, Quantum mechanics, chaos theory, systems theory opened my creativity and created new nerve cells. New ways of looking at “herstory” though Riane Eisler was a version of history and the start of a number of historically based megatrend books by Jared Diamond, Leonard Shlain, Lasse Berg (writing only in Swedish). In values and culture I have been educated by Ruth Benedict (Patterns of Culture, 1989), Ronald Inglehart, (Modernization and

Postmodernization, 1997), Florence Rockwood Kluckhohn (Variations in Value Orientations 1961), Geert Hofstede (Culture's Consequences 1981), Strauss, William & Howe, Neil (Generations 1991 and The Fourth Turning 1997) among many others.

Literature that got me started and inspired me.

The Aquarian Conspiracy- Personal and Social Transformation in the 1980's	Ferguson, Marilyn	Granada Publishing, 1980
The Global Brain	Russell, Peter	J.P. Tarcher inc. Los Angeles, 1983
Paradigms - The Business of Discovering the Future	Barker, Joel Arthur	Harper Business, New York, 1993
Megatrender, tio nya inriktningar som omvandlar våra liv "Megatrends"	Naisbitt, John	Svenska Dagbladets Förlag AB, Södertälje, 1984
Chaos, Making A New Science	Gleick, James	Viking Penguin Inc. 1987
The Chalice & the Blade	Eisler, Riane	Harper Collins, New York, 1988
Paradigms in Progress - Life Beyond Economics	Henderson Hazel	Knowledge Systems Inc. USA, 1991
Den femte disciplinen "The Fifth Discipline"	Senge, Peter M.	Nerenius & Santérus förlag, Falun, 1995

Individuals that have influenced me:

These are not only the individuals that have influenced me, but some of those engaged in Futures Studies.

Dr. Peter Bishop, for his networking, integrity and knowledge.

Dr. Graham May, for his inspiration in bringing Futures Studies to the Masters level in England and his courage in moving on when the time came.

Dr. Sohail Inayatullah, for his inclusivity in practice not just in words, his creativity in Futures Studies and his scholarship.

Dr. Hazel Henderson, for her activism, for opening a new economic paradigm to me, and for her support of the feminine without denying the masculine.

Dr. Helena Pedersen, for helping me to see the world through the eyes of a younger generation, for her academic acuity, and support.

Theories that form my futures work are:

Chaos Theory, Systems Thinking, Innovation Diffusion Theory, Multiple Intelligences (Howard Gardner).

C. Questions Regarding the Field

Unfortunately, I think the future for the field of futures studies is that the trend for tools being swallowed up by organization consultants and

others and selling them as strategic planning and such will continue. It could be that the field will disappear and be integrated into general management and consultant knowledge. This could also be positive and what many of us would like. However, it is hard to say where the center(s) of knowledge, creativity and development will lie. If a few universities maintain their programs and organizations like WFSF and WFS they could provide such centers. Futures studies will only be a success if we practitioners link futures skills strongly to systems thinking. I mean that futures studies tools of trend analysis, scenario and visualization in the hands of linear thinkers will be a failure, because it doesn't lead to holistic, sustainable futures and certainly not to lateral futures. Futures studies in the hands of those who understand how systems work and how they change over time will be more successful in helping individuals think holistically and create futures that are more stages in a process. Radical change can never be made without the ability to understand how systems work, and will be very difficult even with the understanding.

Jennifer M. Gidley

A. Biography

Jennifer Gidley is a Futures Researcher/Practitioner and Educator/Psychologist. Her futures orientation is grounded in many years experience as a Psychologist, Teaching Principal and Educational Consultant in all educational levels and sectors. She is currently completing a Doctorate on the evolution of consciousness with the Centre for Children and Young People (CCYP), Southern Cross University (SCU), Australia. She is also an Advisor to the Integral Education Centre of Integral University, Boulder, Colorado; a Research Fellow of the Global Dialogue Institute, Haverford College; an associate of the European Integral Academy and the Community for Integrative Learning and Action, Massachusetts. She began as a *practical futurist* at the forefront of innovation and creativity in several fields.

“Futures-oriented Educational Psychology and Feminist Praxis” (1970s)

- Community Psychologist consulting with mainstream teachers to establish alternative educational facilities for students who *did not fit in*;
- Director of a Women's Learning Centre with 400 women students returning to work or study in mid-life—the first of its kind in Victoria, Australia.

“Futures-oriented Creative Education and Teacher Development” (1980s)

- Founded and developed an innovative private school in Australia (1983-1994)—inspired by Rudolf Steiner's integral pedagogy—including researching/writing an integrative, imaginative and creative curriculum;

- Established/directed creative, empowering teacher education program.
- “Futures Academic Research: Education and Youth” (1990s)
- Project-managed an online Masters Unit in Futures Studies, at SCU—in collaboration with Sohail Inayatullah and Paul Wildman (1995/1996);
 - Researched/published widely in the futures field, including co-editing a special issues of *Futures* and writing commissioned papers;
 - MA (Research) in Educational Futures at SCU (completed 1997);
 - Established a private consultancy.
- “Integral Futures Pedagogy and the Evolution of Consciousness” (since 2000)
- Co-designed/developed/instructed online Grad Cert of Masters of Strategic Foresight, Swinburne University, Australia (ex-AFI) (2003-2006);
 - Co-edited with Inayatullah: *The University in Transformation...* (Bergin and Garvey, 2000); and *Youth Futures...* (Praeger, 2002);
 - Researching integral philosophies as part of an *integral futures* approach to the *evolution of consciousness* (Doctoral research);
 - International networking/consultation with leading edge academics and professionals in futures studies, education and integral theory.

Jennifer’s main futures research interests include educational futures, integral futures, and futures of culture and consciousness. Her consultancy is currently expanding to operate globally, particularly through applying integral futures to educational transformation to assist in averting the impending planetary crisis.

B. Influences/Bibliography

My interests in educational futures, integral futures, and futures of culture and consciousness all stem from some common genealogical threads. My central philosophy is concerned with the notion that human consciousness is evolving, that new postformal, ways of thinking are arising that are more complex, dialectical, integrative, creative and spiritual. I refer to this new thinking as postformal-integral-planetary consciousness. Along with many other thinkers today I propose that we need to foster this type consciousness if we are to overcome our planetary crises. Consequently we need to educate to facilitate, rather than suppress its emergence. Several pioneers have influenced my futures orientation in this direction.

The most significant influence on my work has been Rudolf Steiner (1861-1925), who was a grand macrohistorian of culture and consciousness (Scharmer, 1998)—yet not generally even acknowledged as a futures philosopher. In my view his work represents the most comprehensive integral epistemology that has so far arisen from the Western cultural tradition, yet even 80 years after his death, his monumental contribution to a spiritual and practical reframing of Western culture and consciousness is still being largely overlooked (Steiner, 1923/1972, 1926/1966). Steiner’s history of the evolution of consciousness tracks similar structures to those

described by cultural historian Jean Gebser (1905 - 1973) (Gebser, 1949/1985). Yet both were in some ways proto-poststructuralists, opposed to the modernist views of their day that proposed *uni-linear* models of development and progress that conveniently culminated in “Western European *civilization*.” Steiner’s description of the multi-layered human being, from the most material layer to the most spiritual layer is not dissimilar to that given by Indian integral philosopher, Sri Aurobindo Ghose (1872-1950) who integrated his Hindic traditions with Hegelian and other German idealist philosophers (Aurobindo Ghose, 1914/1990). Steiner’s writings also covered much of the territory more recently popularised by contemporary transpersonal integral theorist, Ken Wilber. Wilber has endeavoured to map a more expanded view of human consciousness drawing on some of the work of Gebser, Sri Aurobindo and others to develop his *integral theory of everything* (Wilber, 1995/2000, 2000). Of these, only Steiner attempts to provide a broad, *prospective* narrative of cultural futures within which human consciousness might develop and/or expand to include more subtly complex, postformal modes. My research suggests that Steiner was the first scholar—as early as 1904—to write about the notion that a new movement of consciousness was occurring and would become more evident during the 20th century and beyond. He viewed it as a species-wide, planetary phenomenon. Several other scholars began identifying this emergence from shortly after this time—such as Sri Aurobindo, Henri Bergson, Teilhard de Chardin, Jean Gebser and more recently, Ken Wilber and many others. I have recently published research on these developments in relation to educational futures (Gidley, 2007). Further more detailed analyses are in press.

There have also been several more contemporary influences on my futures work. When I returned to further post-graduate academic study in 1994, and discovered by ‘chance’ that there was an academic field called Futures Studies, I felt that I was in familiar territory as I was already conceptually steeped in Steiner’s *macrohistory* and *macrofutures* and had already been a *practical futurist* for 20 years. The futures studies field, however, was able to lead me to many other exciting facets of research, knowledge and methodologies. I felt such an immediate intense connection with the field and some of the people, that before I knew it I was in the Philippines participating in one of the World Futures Studies Federation introductory courses in futures studies. Living in Australia, I have been very fortunate to cross paths with—and be mentored by—several significant futurists. Early influences included: Paul Wildman, who introduced me to the idea of activist/empowerment futures or *futuring*; Sohail Inayatullah, through the breadth of his *civilisational futures*, his editorial mentoring, and his CLA; former WFSF Secretary General and President, Tony Stevenson, through his pragmatic, *planetary* commitment to extending futures research beyond America and Europe to the Asia/Pacific regions; former WFSF President, Richard Slaughter, through the volume of his conceptual contribution to the field and our shared interest in *integral futures*; and more recently, Ivana

Milojevic's *feminist futures*—something of a recursion of my own feminist research decades ago. On a more global basis, I have also been particularly impressed and influenced by David Hicks' educational futures work; Jim Dator's conceptual courage; Elise Boulding's visioning methods and global citizenship notion; Riane Eisler's macrohistory and caring economics; Ervin Laszlo's recent r/evolutionary integral science theories; and Fabienne Goux-Baudiment's dynamic futures activism and many others who have worked to build the field.

C. Questions Regarding the Field

The significant problems we have cannot be solved at the same level of thinking with which we created them (Albert Einstein).

It is now well recognized among leading-edge thinkers in many fields of scholarly endeavour (including sub-sections of futures studies, psychology, philosophy, education, integral studies, spirituality studies, ecology and systems theory) that our fragmented, mechanistic and materialistic ways of thinking over the past three hundred years are no longer sustainable—and have indeed left us with a dying ecosphere. While the different disciplines push for what is needed from their own perspectives, very few have the breadth of vision to encompass the wide-ranging sweep of deep change that is required. I agree with Ervin Laszlo's claim that "the evolution of consciousness ... has become a pre-condition of our collective survival" {Laszlo, 2006 #1077, p. 77}. I suspect that even apparently far-sighted transdisciplinary fields such as futures studies are for the most part looking too close to the ground (*pragmatic futures*) and/or are too short-term focused (*strategic futures*). More futures work needs to be oriented to the big picture of *paradigmatic* and *civilisational futures* if we are to adequately address the immensity of our planetary problems. Meanwhile, the potential benefits of an authentically *integral* approach—which one might expect to come to the rescue—is currently somewhat obscured by a process resembling factionalism (Hampson, 2007). Where might the necessary meta-integration come from? Can futures studies rise to the call of the hour?

While the futures studies field has clearly been successful in its enormous contribution to futures thinking in the last few decades, it is imperative that as a field we do not rest on our laurels. The growing global awareness of our planetary ecological crisis has not just catalysed futurists. Many thinkers in many fields have also begun to rapidly intuit the need for long-term futures perspectives. Perhaps some of these approaches may be considered naïve from the perspective of professional futures. However, it is encouraging that so many academics, professionals and activists have begun to take serious account of the relevance of foresight in averting a worst-case planetary crisis scenario. Many are also working within and across disciplinary boundaries to identify and encourage the qualities inherent in

the emergent consciousness—including complex, ecological, dialectical, futures, contextualized, holistic/integral, spiritual and creative modes of thinking—that could add much to the palette of professional futures development (Hampson, 2007).

Some playfully-serious scenarios I see for futurists and futures studies as a field.

Suits in a Global Heatwave: In this scenario, futures studies would be appropriated by a neo-conservative *suit and tie* corporate sector with a taste for the competitive-edge gained from futures models. An increasing number of new futurists might miss the emergent shift to *postformal*, complex reasoning and be seduced to continue to support an unsustainable, consumption-based, *formal*, modernist worldview. A swing to corporatised futures—in denial about the planetary crisis—might be a lucrative proposition for futurists, while it lasted...

Futures Methodotopia: In this scenario, the majority of futurists continue to characterise futures as a specialty academic or professional field, somewhat isolated from potential sister approaches. We continue to develop ever more sophisticated methods that require even more specialized training to learn—as part of the dominant historical thread to *scientise* futures as a discipline. While there is clearly a significant place for rigorous, valid methods, an overemphasis on specialization within futures studies, at the expense of contextualizing it within a broader spectrum of postformal approaches, may achieve little more than “re-arranging the deckchairs on the Titanic.”

Dissolve with Dignity: The majority of futurists in this scenario recognize that as a result of the sudden global awakening to the immanent destruction of our ecosphere, many leading-edge academics, corporates and political leaders have *simultaneously* grasped the transdisciplinary need for *futures thinking*, *integral thinking* and *complex-ecological-planetary thinking* (for more on the latter see Edgar Morin (Morin & Kern, 1999)). Futures studies as a separate, specialized field becomes redundant. Individual futurists—who have opened up to a wider planetary emergence—become integrated into multiple transdisciplinary projects and processes in a range of emergent postformal-integral-futures-planetary-aware movements for change and renewal.

From Doom and Gloom to Zoom and Bloom: This scenario sees the majority of futurists awaken one wild, typhonic, blistering or flooding day to realize that while they have been internally focused on developing the concepts, methods and tools (and even tool-kits) of their trade, something unexpected has happened. It must have been one of those dreaded *Wild Cards* that has slipped through, almost unnoticed. We suddenly realise that *other* transdisciplinary, postformal, integral, feminist, ecological, planetary and

even futures-aware sub-fields have been germinating quietly beneath the icy snow of scientific materialism, frozen together with politico-economic rationalism. And they are beginning to flower. Awake and flexible futurists—like Deleuzian conceptual nomads—begin to network and merge with like-minded planetary nomads from these other leading-edge movements. By learning to zoom in and out of different conceptual focal lengths, and other paradigmatic conceptualizations, futurists begin to bloom. But we are no longer *just* futurists.

Selected Relevant References that may not be well known among futurists (For brevity I have excluded relevant citations from work that *is* more likely to be known among futurists).

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Jerome Clayton Glenn

A. Biography

Jerry Glenn is co-founder and director of the Millennium Project, the leading global participatory think tank supported by international organizations, governments, corporations, and NGOs, which produces the

internationally recognized *State of the Future* annual reports for the past eleven years which addresses the 15 Global Challenges such as climate change, energy, water, conflict resolution, health, crime, etc.

Mr. Glenn has 37 years experience in futures research for government, international organizations, and private industry in science & technology policy, economics, education, defense, space, forecasting methodology, international telecommunications, and decision support systems with the Millennium Project, Committee for the Future, Hudson Institute, his own firm (the Future Options Room).

Glenn is the author of over 100 future-oriented articles in publications such as the *New York Times*, *Nikkei*, *ADWEEK*, *International Tribune*, *LEADERS*, McGraw-Hill's *Contemporary Learning Series*, *Current*, *Royal Society of Arts (RSA) Journal*, *Foresight*, *Futures*, *Technological Forecasting*, *Futures Research Quarterly*, and *The Futurist*. He is editor of *Futures Research Methodology* versions 1.0 and 2.0, and has authored or co-authored 15 books, including *Future Mind: Merging the Mystical and the Technological in the 21st Century* (1989 and 1993), *Linking the Future: Findhorn, Auroville, Arcosanti* (1979), and *Space Trek: The Endless Migration* (1978 & 1979).

His recent studies include *Education and Learning 2030* for the Government of Korea, *Global Energy Scenarios 2020* for the Kuwait Petroleum Corporation, *Emerging International Issues in Environmental Security* for the US Army, *Science and Technology scenarios 2025* for the Office of Science, US Department of Energy. The *2007 State of the Future 2007* is being used as a university textbook around the world. Glenn keynotes major conferences around the world, for corporations, associations, governments, universities, and international organizations.

He invented the "Futures Wheel" a futures assessment technique, Futuristic Curriculum Development, and concepts such as conscious-technology, transinstitutions, tele-nations, definition of environmental security, feminine brain drain, just-in-time knowledge and learning, information warfare, feelysis, animal proteins without growing animals, counter transnational organized crime strategy, nodes as a management concept for interconnecting global and local views and actions, and with Ted Gordon, the State of the Future Index, the risk of SIMAD (Single Individuals Massively Destructive).

Glenn was executive director of the American Council for the United Nations University (1988-2007), the deputy director, *Partnership for Productivity International* involved in micro-credit, national strategic planning, institutional design, training, and evaluation in economic development in Africa, Middle East, Asia, the Caribbean, and Latin America. He founded CARINET the computer network in 1983 (now owned by CGNET), and has consulted for corporations, USAID and its contractors, World Bank, UNDP,

UNU, UNEP, UNESCO, US Army, DOE, and several governments and corporations.

Saturday Review named him among the most unusually gifted leaders of America for his pioneering work in Tropical Medicine (national Leprosy system while a Peace Corp Volunteer), Future-Oriented Education, and Participatory Decision Making Systems in 1974. He was instrumental in naming the first Space Shuttle the *Enterprise* and banning the first space weapon (FOBS) in SALT II. He has a BA in philosophy from American University, an MA in Teaching Social Science - Futuristics from Antioch Graduate School of Education (now Antioch University New England), and was a doctoral candidate in general futures research at the University of Massachusetts 1972-74. He received honorary doctorate and professorship from two universities in Latin America, the Donella Meadows Metal, Kondratieff Metal, Emerald Citation of Excellence, and is a leading boomerang stunt man.

B. Influences/Bibliography

R. Buckminster Fuller for inventing the concepts of synergy, doing more with less, design science with dymaxian principles, world games, uniting architecture and futures research, tensegrity, and the geodesic dome.

Herman Kahn for seriousness of analysis and synthesis during the Cold War, for inventing scenarios to influence policy to change the future that most thought was inevitable, for accepting being misunderstood while shattering every myth he could find.

Timothy Leary for being an experimental human being, for challenging humanity to be far more than most thought was possible, for working with the song writers who helped create the "American 1960s cultural revolution," for his SMILE (Space Migration, Intelligence Increase, and Life Extension) as the basic multi-trend, and for his speed of thought, precision of insight, and simple communications of very complex patterns of civilizations.

C. Questions Regarding the Field

Thermonuclear War did not occur between the USSR and the USA; it cannot be proven how futures research helped prevent WWII, but that was its original purpose. Concepts like best and worst case scenarios and synergy have entered the public vocabulary influencing more long range thinking in global warming, AIDS, demographics, technological impacts, and alternative thinking in general. Global collective intelligence with public participatory systems could be the next frontier for futures research.

Fabienne Goux-Baudiment, Ph.D.

A. Biography

Born 18 June 1960, married, one child.

In the 1980s, she was assistant to Prof. Jacques LESOURNE and Michel GODET –famous French futurists– and lecturer in futures studies and strategy (cycles B and C of the *Conservatoire National des Arts et Métiers*); then assistant to the general manager, in charge of futures studies within the *Agence pour la Diffusion de l'Information Technologique* (ADITECH), she subsequently became studies manager of *Futuribles International*.

She is the head of **proGective**, a consulting firm dedicated to futures research, study and advice she founded in August 1994. She is a fellow of futurists associations such as the World Futures Studies Federation (Executive Board Officer), the World Futures Society (U.S.) and APF. Since 1995, she has taught futures studies at the University of Angers (France) –ISTIA, Institute of the Science and Technology for Engineers– and regularly gives lectures in universities, public institutions, private organisations on various futures-oriented subjects...

As an international expert, she is also a member of scientific committees for seminars and international conferences, and of panels of experts about specific subjects (environment, energy, space activities, Mediterranean area, etc.).

She has written several papers and books, especially three about the territorial prospective and one about 'French prospective'. Some are translated into English, Italian and Spanish.

In August 2005, she was elected **President of the WFSF** ([World Futures Studies Federation](#)), as recognition of her international career devoted to futures studies. This NGO, established in 1973, is a global network of practicing futurists –researchers, teachers, scholars, policy analysts, activists and others from over 50 countries– dedicated to the promotion of futures studies. She will serve for a term of four years and can be re-elected for no more than two consecutive terms.

proGective

proGective offers a comprehensive set of futures-oriented services (Futures Studies/ Foresight/ French Prospective) along three main axes.

Territorial foresight is about the elaboration of the organisation and content of foresight exercises (participatory processes) for public authorities and for firms (organisational and strategic foresight). Within this

framework, we create ad hoc methodologies; lead facilitation of workgroups and write futures-oriented synthesis of their work; provide futures-oriented studies, diagnostics, early warning synthesis and a whole set of information called “informational basis”; we also coach the project manager and his/her team.

Comprehensive foresight is about a better understanding of the world and the fostering of foresight at national and international level. This is implemented through the creation and implementation of Foresight Departments within an organisation (territorial, national or international), with the associated tools and training. The dissemination is spread through awareness-raising and education to Futures Studies by training (in-house and external sessions), lectures, publications, communications (R&D), and also by contributing to scientific committees for international conferences, seminars, etc.

macroTrends is about the survey of the drivers of change.

This survey is internalized within proGective and leads us to spot emergent trends and weak signals and to identify the pattern designing the Big Picture, based on our own macrohistory-oriented analytical grids. We also design futures-oriented information systems (SIP[©]), with specific databases processing and ad hoc ways to collect and process information (strategic survey fields).

Last but not least, we develop a broad thematic expertise (energy, water, geopolitics, cities, education...), whose list can be found on our website.

B. Influences/Bibliography

My futures work is mainly based on the work of Gaston BERGER (1896-1960), the inventor of the French ‘prospective’ (see my PhD). Gaston BERGER made the difference between the “futures-oriented attitude” that we could call ‘daily foresight’, a way to consider all the future consequences of our acts into the decision-making process, and the “futures-oriented anthropology”, which is about the way to face new problems (those who have never been addressed in the past) and solve them or avoid them to happen, in a holistic way. This futures anthropology is almost a philosophical way to consider the future and the human action over it, very close to the thinking of Pierre TEILHARD DE CHARDIN. For Gaston BERGER, the future is not determined, so it can’t be predicted. The only action that human being can have on the future is to create it; hence the opposition between the exploratory futures studies (descriptive) and the ‘normative’ prospective (normative because it gives the means to modify the reality according to the vision of the future it helps to achieve¹). The way Gaston BERGER conceived the ‘prospective’ would likely be called “integrative” nowadays.

¹ Une théorie normative n'est pas une théorie à laquelle la réalité doit s'accorder, mais une théorie qui doit donner les moyens de modifier la réalité dans le sens qu'elle décrit.

I have been also influenced by Pierre TEILHARD DE CHARDIN and what could be named his “far future” approach. As a palaeontologist, he has been able to produce a very-long term approach of the human evolution, from very far past to the very far future, thus pointing out the structural aspects of evolution (not unlikely Olaf STAPLEDON). His visionary conception of the noosphere is a powerful analytical grid.

Amongst our contemporaries, I found in the thought of prof. Eleonora BARBIERI-MASINI a kind of synthesis of the previous approaches, and her focus on the role of the values has certainly influenced me a lot, especially these last years. What I read from Sohail INAYATULLAH has shown a huge proximity with my own works and ways to deal with futures studies and our convergence is an inspiring source. More recently I have been struck by Jim DATOR’s insights and his capability to reinvigorate futures studies by serious science fiction, which I have never dared to do considering the disdain the French culture shows for science-fiction.

However science-fiction can’t be excluded of what influences me, or even informs my work in term of interpretation of evolution patterns. As it is clear from the previous lines that my interest in futures studies is about evolution and the forces of transformation, the SF writers who have had the greater impact on my mind have been those describing whole patterns of evolution, such as ASIMOV (the cycles of *Foundation* and *Robot*²), BAXTER, CLARKE, HEINLEIN, HERBERT (*Dune*), LE GUIN (*Ekumen*), ROBINSON; and chronies (DICK, ROBINSON).

Last but not least, brilliant minds such as Ludwig von BERTALANFFY, Buckminster FULLER and Alfred KORZYBSKY have enlighten my thoughts during the last twenty years and their influence is still vivid on my work.

C. Questions Regarding the Field

We are writing the history of the future without even knowing it. Day after day, our awareness of this future-making is rising. After Louis PASTEUR, it has taken 50 years to microbiology to be recognized as a science. It will take at least the same time to futures studies to enter the Academe by rights.

Already the French Prospective has been institutionalized and it is now compulsory for local governments to make a futures study when planning the development of a territory. University is slow to adapt, and its current market-orientation does not accelerate the pace of the integration of FS in the curricula.

The main failure of SF lies in its inability to structure itself, at the world level, in professional body, with its own code of ethics, rules, diplomas, and labels, unlike economics or marketing.

² [The Caves of Steel, The Naked Sun, The Robots of Dawn and Robots and Empire; a cycle providing more insights than Foundation.](#)

Right now, there is a new blossoming of national futures societies in different parts of the world. This phenomenon is important to renew the field, however this fragmentation will damage it more than it can favour it. The need for a world umbrella is stronger than ever before, but the players are too individualistic and they do not seem to have understood that the strength of XXI^o century is cooperation and no longer competition.

Let's hope that the next generations will be smarter and will bring a new dawn on the field of FS thanks to a genuine cooperation.

Hans-Georg Graf, Ph.D.

A. Biography

Professor Dr. Hans Georg Graf is professor emeritus for political economy, specialized in scenario-technique and economic forecasting. He has been professor of economics and forecasting at the University of St. Gallen (HSG), Switzerland, and member in various Federal Commissions of Experts. As lecturer on macroeconomics and prognostics for MBA-Curriculae he works for different universities.

Research Areas

- Futures Research / Scenarios
- Long-term Economic Development Trends
- Competitiveness in the World Economy
- Policy and Strategy Consulting

Professor Graf has worked extensively in the scenario field since 1970. As a consultant for the Swiss Federal Government he has prepared long-range scenarios on the worldwide framework for the Swiss economy. Additionally scenarios on demographic and economic trends as well as sectoral development have been developed. Planning of long-term policies of the Swiss Government is widely based on scenarios developed by Prof. Graf and has been used extensively in the preparation of energy-, transport-, social security-, health- and education-policies. His work includes also scenarios for the construction industry. He is Director of the "SGZZ", The Centre for Futures Research in St. Gallen, consulting business and public bodies mainly in Switzerland and has worked for UNIDO as expert in foresight methodology.

Recent publications

In English:

- Economic Forecasting. Possibilities and Limitations, Quorum Publishers, Westport CT, 2001
- Global Scenarios, Megatrends in Worldwide Dynamics, Zürich 2002

In German:

- und in Zukunft die Wissensgesellschaft, Zürich 2003
- In die Zukunft führen. Strategieentwicklung mit Szenarien, Zürich 2004
- Economics & Management, Zusammenhänge der Wirtschaftswelt, Zürich 2005

B. Influences/Bibliography

In disseminating future-oriented ways of thinking in the 1970s and 1980s the following publications have made significant contributions:

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- Ruggles, R.: *Long Range Economic Projections*. Princeton NJ, 1954.
- Fourastié, J.: *La grande métamorphose du XXe siècle*. Paris, 1961.
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- Kahn, H. and Wiener, A.J.: *The Year 2000, A Framework for Speculation on the Next Thirty-Three Years*. New York, 1967.
- Bell, D.: *Towards the Year 2000: Work in Progress*. Cambridge, 1968.
- Flechtheim, O.K.: *Futurologie, Der Kampf um die Zukunft* [The Fight for the Future]. Cologne, 1970.
- Toffler, A.: *Future Shock*. New York, 1970.
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- Bell, D.: *The Coming of the Postindustrial Society*. New York, 1973.
- Jungk, R.: *Der Jahrtausendmensch* [Man and Millennium]. Munich, 1973.
- Mesarovic, M. and Pestel, E.: *Menschheit am Wendepunkt* [Turning Point for Mankind]. Stuttgart, 1974.
- Herrera A., Skolnik H. et al.: *Grenzen des Elends* [Limits to Misery]. Frankfurt, 1976.
- Kahn H. et al.: *The Next 200 Years*. New York, 1976.
- Galbraith, J.K.: *The Age of Uncertainty*. London, 1977.
- Laszlo, E.: *The Goals for Mankind*. New York, 1977.
- Leontief, W. et al.: *The Future of the World Economy*. New York, 1977.
- Tinbergen, J.: *Reshaping the international order*. London, 1977.
- OECD (Lesourne, J.): *Interfutures, Facing the Future, Mastering the Probable and Managing the Unpredictable*. Paris, 1979.
- Vester, F.: *Neuland des Denkens* [New Ways of Thinking]. Stuttgart, 1980.
- World Commission on Environment and Development: *Our Common Future*. Oxford, 1987.
- Pestel, E.: *Jenseits der Grenzen des Wachstums* [Beyond the Limits to Growth], 2nd ed. Stuttgart, 1988.
- Schwartz, P.: *The Art of the Long View*. New York, 1991.

- International Commission on Peace and Food: *Uncommon Opportunities*. London, 1994.
- Bell, W.: *Foundations of Futures Studies*, 2. Vols. New Brunswick, 1996.

C. Questions Regarding the Field

It should be noted that with most of these studies, an interdisciplinary approach was chosen, which has led to a substantial deepening of the information base for future-oriented decisions. At the same time the range of information has been significantly expanded by a variety of issues. It has remained unresolved, however, whether, following the decisions taken so far-particularly on a macroeconomic and global level-frequently raised problems have actually been tackled, whether the problems made evident through projections have in the end really been understood correctly, or whether the developments forecast have indeed displayed the alleged negative effects.

As every decision is futures oriented, and as every science aims at improving our knowledge base for decision making (maybe we can exclude archeology), we cannot do without futures research (consciously or unconsciously). If we succeed to get this message across and stress long-term thinking, scientifically based futures research will contribute to a better world, while a perfect one is not achievable.

Eva Hideg, Ph.D.

A. Biography

Education

- Candidate of Science (CSc), Hungarian Academy of Sciences, Budapest, 1988 (CSc is equal to PhD.)
- Economist, Karl Marx University of Economics Sciences, Budapest, 1974

Professional Experience

- 1990-present, Associate Professor, Corvinus University of Budapest
- 1974-1990, Research Associate, Hungarian Academy of Sciences, Budapest

Current Research Areas

- Futures studies and praxis
- Paradigms in futures studies
- Social future models
- Further development of methodology and methods in the field of complex, socio-economic forecasting,
- Paradigm shifts in futures studies
- Home adaptation of the new trends in futures studies,
- Futures studies, evolutionary modelling and the general evolutionary theory,
- Foresight and the critical futures studies

- Hungary in 2020 and in 2025.

Research Projects

- Futures studies in the interactive society, project leader, (2005-2008)
- Drawing up of a feasibility study on a regional examination centre network in Hungary, project leader, (2006-2007)
- COST A22 (Foresight Methodologies - Exploring New Way to Explore the Future)
- Member of the Management Committee and participant (2003 - 2007)
- Change and future, participant, (2003-2006)
- Paradigms in futures studies, project leader (2001 - 2004)
- Applying evolutionary models in forecasting, project leader (1998 - 2000)
- Further development of methodology in futures research at the era of transition, project leader (1995 - 1997)
- Development of vocational education in the functions of its socio-economic environment in Hungary from 1900's till 2000's, project leader (1995 - 1996)
- The possible futures of the Hungarian vocational education in the frame of socio-economic processes, project coo-leader, (World Bank subproject) (1992 - 1994)
- Elaboration of series on Theories in Futures Studies, project leader (1998 - present)
- Elaboration of series on Case Studies in Futures Studies, project leader (1995 -present)
- Hungary beyond tomorrow - the actualization of the Hungarian future image for the groundwork of online social strategy forming, participant (2003 - 2004)
- Space and time in the contemporary futures studies and philosophy, participant (2001 - 2002)
- Future orientation of the Hungarian enterprises, participant (1997 - 1998)
- Hungary beyond tomorrow, participant (1997 - 2000)
- Futures studies and chaos, participant (1992 - 1994)
- Functions and methodology of complex socio-economic forecasting, participant (1986 - 1992)
- Basic needs and the possible futures for Hungary, participant (1988 - 1990)
- Social aspects of developing environmental strategies, participant (1982 - 1990)
- Complex futures research for very long time horizon, participant (1974 - 1986)

Publications: altogether 190 papers, 17 are books, many are book chapters, articles, studies and book reviews on different field of futures studies. Some of them were presented at different conferences. The number of independent references is about 300.

Teaching Activities

- Futures studies
- Social forecasting
- Socio-economic forecasting
- Education and the future

B. Influences/Bibliography

In 1970s recognising the theory and practice of socialist planning shocked me. It was impossible for me to believe only one future exist. First I looked for different possible social futures within the Marxist theory. In that time I met with the reports to the Club of Rome and literatures of futurology and futures research. From 1980s I got acquainted with the post-modern ideas and philosophy, the general evolutionary theory and the mainstream futures studies.

Some individuals who influenced my futures work: Geza Kovacs (first futurist in Hungary), P. Malaska, E. Masini, J. Dator, A. Toffler, E. Laszlo, R. Slaughter, D. Bell, M. Mennermaa, Z. Sardar, S. Inayatullah and Vilmos Csanyi (ethologist). Their books, articles and sometimes personal meetings and conversations shaped my way of thinking about the future.

C. Questions Regarding the Field

As I think, the desirable future of FS should be the 'Integral Futures'. FS should become a general framework for different future theories, methodologies, approaches and practices. Futurists should take the opportunity to the reflexivity and synergy that different futures theories, approaches and practices offer. Some details you can read in my paper published recently in Foresight journal. (Eva Hideg: Theory and practice in the field of foresight, Foresight, 2007, Vol. 9, No. 6. 36-46. pp.)

Christopher Burr Jones, MA, Ph.D.

A. Biography

Christopher Burr Jones is a political scientist, futurist, and author.

Highlights: He is a graduate of the Manōa School of Futures Studies, taught for three years in the MS of Studies of the Future program at the University of Houston-Clear Lake (2000-2003), was Secretary-General of the World Futures Studies Federation (WFSF) (2000-2004), a member of the Executive Board (2005-2008) and Fellow of the WFSF. He published his first novel *Fire and Ice* in 2006, the first book in a trilogy about extra-terrestrial First Contact.

He received his academic training at Merritt College, Oakland, California (A.A. in Liberal Arts) and the University of Hawaii at Manōa he received his: B.A. in Political Science (1980); M.A. in Alternative Futures, Thesis - Alternative Futures of Space Development (1983); and, Ph.D. in Political Science, Dissertation - Gaia Futures (1989).

He was an undergraduate intern with the Hawaii State Senate Judiciary Committee, and was among the first futures studies interns with the

Institute for Alternative Futures (Washington, D.C.). While in Hawaii he was a research fellow at the East-West Center, researcher for the Pacific International Center for High Technology Research, the Social Science Research Institute, and the Pacific Basin Development Center. His projects included the futures of high technology and telecommunications, alternatives to dispute resolution, climate change and sea level rise, recycling, and coastal zone management. He worked in Tuvalu, American and Western Samoa, Papua New Guinea, the Marshall Islands, Palau, Guam, the Northern Marianas, Fiji, and all the major Hawaiian islands.

In 1992, Jones took a position as Professor of Political Science at Eastern Oregon University (EOU) where he taught American Institutions, Comparative Politics, International Relations, and Futures Studies. He served on the Statewide AIDS Planning Committee, executive board of the Model United Nations of the Far West (MUNFW), was active in the Solsys Simulation, the annual CONTACT conference, and the activities of the World Futures Studies Federation (Fellow). In 2000, Jones accepted position as Visiting Associate Professor in the M.S. Studies of the Future program at the University of Houston-Clear Lake where he taught for three years. Courses taught included: Introduction to Futures Studies, World Futures, Qualitative Methods, Women's Futures, Political Design, and Public Service Leadership. While at EOU and at UHCL, he developed a number of these face-to-face courses into online, web-based distance education courses.

Jones has had four major areas of academic and research specialization:

- Futures Studies -- alternative futures methodologies, scenario-building, visioning and preferred futures, and workshop design;
- Space Development -- space settlements and political design, politics of SETI and First Contact, and long-term space migration;
- Gaian Politics and Futures -- women's futures, deep ecology, sustainable futures, indigenous peoples' movements, and the "new" sciences; and,
- Instructional Technology -- web-based education, telecommunications futures, role-playing and computer simulations, multi-image presentation, and the politics of media.

Jones was Secretary-General of the World Futures Studies Federation (2001-2005) and is now an Executive Board member (2005-2009). Jones attended WFSF courses in Dubrovnik, Croatia and Budapest, Hungary, and futures conferences in the USA, Sweden, Spain, Costa Rica, Hungary, Finland, Russia, Romania, Hawaii, Australia, Taiwan, Japan, and has been actively involved in the WFSF since 1981. He currently lives on the Western Slope of the Rocky Mountains in Grand Junction, Colorado and holds a position as Visiting Professor of Political Science at Mesa State College.

B. Influences/Bibliography

The most influential literature in my life as a futurist:

Anderson, Walter. *To Govern Evolution*.
 Bell, Daniel. *The Coming Post-Industrial Society*.
 Bell, Wendell. *Foundations of Futures Studies*.
 Bezold, Clement (ed). *Anticipatory Democracy*.
 Brundtland, Gro Harlem. *Our Common Future*.
 Calder, Nigel. *Spaceships of the Mind*.
 Capra, Frijof. *The Turning Point*.
 Dator, James. *Advancing Futures* and others, various (cf., his web site)
 Eisler, Riane. *The Chalice and the Blade*.
 Ferguson, Marilyn. *The Aquarian Conspiracy*.
 Fuller, Buckminster. *Operating Manual for Spaceship Earth and Critical Path*.
 Galtung, Johan, and Sohail Inayatullah (eds). *Macrohistory and Macrohistorians*.
 Harman, Willis. *An Incomplete Guide to the Future*.
 Heilbroner, Robert. *The Future as History and An Inquiry into the Human Prospect*
 Inayatullah, Sohail (ed). *The Causal Layered Analysis Reader*.
 Kuhn, Thomas. *The Structure of Scientific Revolutions*.
 Lovelock, James. *The Gaia Hypothesis and Ages of Gaia*.
 Macy, Joanna Rogers. *Despair and Personal Power in the Nuclear Age*.
 Markley, Oliver and Willis Harman. *Changing Images of Man*.
 Masini, Eleonora. *Why Futures Studies?*
 McCorduck, Pamela and Nancy Ramsey. *The Futures of Women*.
 McHale, John. *The Future of the Future*.
 McLuhan, Marshall (et al.). *The Gutenberg Galaxy, The Medium is the Massage, and The Global Village*.
 Meadows, Donella, et al. *Limits to Growth and Beyond the Limits*.
 O'Neill, Gerard. *The High Frontier*.
 Platt, John. *The Step to Man*.
 Pollock, Fred. *The Image of the Future*.
 Robertson, James. *The Sane Alternative*.
 Sanday, Peggy Reeves. *Female Power and Male Dominance*.
 Sardar, Ziauddin (ed). *Rescuing All Our Futures*.
 Schwartz, Peter. *The Art of the Long View*.
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C. Questions Regarding the Field

Successes of futures studies

Broadly, the successes of futures studies and foresight are that the perspectives and some of the techniques of futures (i.e., scenario planning) have had an impact on the broader society. One of the best examples is “brainstorming.” Futures studies have had some impact through literature and practice on consciousness-raising about the future in the culture at large. Among examples are Toffler’s *Future Shock* and Naisbitt’s *Megatrends*. Such “pop” futures may have done more harm than good to the profession generally, but have reached a mass audience. Individuals with a futures outlook, such as Newt Gingrich, Al Gore, and Gro Harlem Brundtland have also had an impact on policy and implementation on the domestic and international levels. To a lesser extent, other futurists such as Hazel Henderson, Willis Harman, and Barbara Marx Hubbard have had a larger effect on subcultures, especially the New Age and the progressive, post-modern segment of industrialized societies. The lasting impact of that influence remains to be seen.

The Club of Rome, as a futures-related organization (and the people behind *Mankind at the Turning Point*), through the *Limits to Growth* set early markers for the evaluation of human ability to assess and adapt to the changing nature of the planetary technosphere.

Non-western futurists and feminist futurists also carved out space for alternatives to industrial capitalism Business As Usual futures (see Masini, Sardar, and W. Bell).

In popular culture, arguably Hollywood and fiction have had even greater impact through *Star Trek* and the *Star Wars* franchises. In terms of vision, the US lunar and Mars missions have been even more influential in opening up the possibilities of new frontiers.

Failures of futures studies

Although the *Limits to Growth* was a dramatic example of futures practice, the effect has been to cast many futurists as advocates of a “doom and gloom” view of the future—unfair, yet a perception that has stuck. Futures

began as both a critique of the industrial worldview AND a set of techniques to explore future possibilities. The former task has been largely unsuccessful, while that latter has gained more traction. Sadly, from a critical perspective, futures studies and foresight have become useful tools for corporate and large organizations to continue to dominate the cultural landscape. There has been a sharp decline in normative futures education and a shift towards pragmatic and futures consultancies. Corporate colonization of futures studies continues to undermine critical and theoretical futures activities. Furthermore, the success of technological innovation has in some ways negated the value of futures research: we are now living in the Future and it out-paces our ability to adapt and institute futures analysis and research.

Progress in the field

The few successes of futures seem overshadowed by the on-rushing tsunamis of change (Dator). There are significant advances in Europe, Australia, Taiwan, and other parts of the globe, but the USA particularly seems wed to quarterly reports, bottom-line analysis, and two-year election cycles: no one is minding the future. Some notable successes include the Y2K efforts to deal with a looming technological glitch, and the growing concern about global warming, but it is hard for me to be as optimistic as I was when I began my career in the field. A paper I wrote titled "Star Makers or Planet Eaters" is still as relevant as it was a decade ago: will we be able to evolve sufficiently to avoid spoiling our own nest? The jury is still out. Wait for a text message to get the answer.

István Kappeter, MD

A. Biography

Degrees: special teacher (1953), teacher of pedagogy and psychology (1955), physician (1962), neurologist (1966), psychiatrist (1968), psychotherapist e honore (1981).

I have been working mainly in psychiatric rehabilitation, and in community psychiatry. I follow in psychiatry my own direction, a combination of the line of Hungarian special teaching, of familial milieutheraPy of Istvan Benedek and dynamic psychiatry of the followers of Gunter Ammon. Since 1991 I have worked as a consultant psychiatrist (earlier the head psychiatrist) in a psychiatric nursing home. Since 1991 I have joined the Futures Studies Department headed by Erzsebet Novaky, of Budapest Corvinus University.

B. Influences/Bibliography

With Erzsebet Novaky and Eva Hideg I took part in the research about future orientation between 1991 and 93. I delivered a course about "The people of the future and the futures of people" at the Budapest University of

Economic Sciences (later called Corvinus) between 1992 and 1994. With Eva Hideg and Erzsebet Novaky I took part in a research about the future of pedagogical work.

I was thinking about the similarities of psychiatry and Futures Studies, particularly in the usage of system theories, particularly of chaos theory. I made a study on the effects of unconscious human reactions to forming future 1998-2001.

My book in Hungarian with an English abstract titled "AZ EMBERISÉG KÉPES JÓRA VÁLTOZTATNI A VILÁGOT" (Humankind can change the world for the better). Recently I took part in a study of the attitudes to the changes (headed by Erzsebet Novaky) with a study "Constructive aggression in forming the future", and a little book about this is accepted to be published.

C. Questions Regarding the Field

I agree with Ruben Nelson, we are at the latest moment for the leaders of the world accepting the results of FS.

Anita Kelleher, MLMFS, MFS, APF

A. Biography

Principal, Designer Futures

Affinity Partner Director (Australia), Shaping Tomorrow

Lecturer, Master of Strategic Foresight, Swinburne University, Melbourne

Anita Kelleher is a professional futurist with a passion for working with organisations and communities to help them realise their potential. Anita brings a wealth of management experience and leading edge theory to her work with clients. With over 30 years experience in the private, public and not-for-profit sectors in the UK and Australia, she has earned a reputation for providing skilled and practical guidance with integrity.

Acknowledged as an accomplished practitioner of intelligence-acquisition, Anita has since helped many other organisations identify the trends and potential shockwaves that can affect them in a dynamic environment. Using a range of creative, analytical and participatory techniques, she now works with clients to design strategies for the longer-term that anticipate emerging issues and shape preferred futures.

Her strategic foresight work has taken her into exciting projects across a range of industries including: creative industries; education; energy; community development; children and youth services; emergency services; social services; and insurance. In 2004 she was honoured to be selected by the United Nations to participate in their global responsibility initiative 'Developing the Next Generation of Globally Responsible Business Leaders' and has contributed futures research and scenarios on the topic of the role

of corporations in future global governance. Anita also worked with the OECD international futures program on education futures and public policy futures projects.

With Masters degrees in Leadership, Management and Futures Studies, following strategic foresight studies in Paris, Helsinki, London and Melbourne, Anita is one of the few professionally qualified futurists in Australia. Anita is a member of the Association of Professional Futurists, the World Futures Studies Federation, and the World Futures Society.

Selected Publications and Articles

- 'Corporations and Global Governance: A Multi-Cultural Futures Perspective', Journal of Futures Studies
- 'Ethics for the Future', (contributing author), State of the Future 2005, U.N.U
- 'A Personal Philosophy of Anticipatory Action-Learning', Journal of Futures Studies
- 'Scenarios for Peace Between Israel and Palestine', (contributing author), State of the Future 2004, United Nations University
- 'Business and Community Partnerships in Western Australia', Shared Visions Shared Benefits

B. Influences/Bibliography

People:

Hazel Henderson, Richard Slaughter, Sohail Inayatullah, Gill Ringland, Michel Godet, Jaap Lemuis, Riel Miller, Zia Sardar

Literature:

The Tao of Leadership. John Heider.

Strategic Foresight: The Power of Standing in the Future. Marsh, McAllum and Purcell.

Questioning the Future: Methods and Tools for Organisational and Societal Transformation. Sohail Inayatullah.

Scenarios for Business and Scenarios in Public Policy. Gill Ringland.

Natural Capitalism. Hawker Lovins and Lovins.

Deep Futures. Doug Cocks.

Neo Power. Honeywell and Blyth.

Cannibals with Forks. John Elkington.

The Tao of Physics. Fritjof Capra.

Future Frequencies. Woodgate and Pethrick.

Theories:

Systems, quantum, deep ecology, Integral.

C. Questions Regarding the Field

Assuming the term ‘futures studies’ refers to futures and foresight education then, in my view, futures studies needs to integrate with other school, college and university programs.

The most successful example of this approach is that of Tamkang University in Taiwan where all students, regardless of the primary discipline pursued, are required to undertake futures studies. Another example is the program in Hawaii where futures studies are offered with political science courses. Yet another is Catholic schools in Australia, some of whom have included futures studies in the curriculum.

These thriving programs are, however, still very much in the minority within the overall education system.

Specialised, stand-alone university courses in this field appear to have difficulty in attracting the number of students required for profitability. Most schools have no lessons in the curriculum that utilise the wealth of rigorous and engaging futures exercises developed specifically for use in schools.

Yet increasingly, in my experience, businesses and governments are seeking professional futures and foresight skills to inform strategic policy and planning, product and service innovation, risk management and corporate decision-making. Organisations want people that can anticipate the next wave of change and take responsibility for the future impacts of their decisions and actions. The demand for these attributes appears to be growing and is, as yet, unmet by education systems in many countries.

As one Australian child said at the end of a youth futures forum “this should be taught in schools. We learn about the past - we also need to learn about the future. In addition to History we should have a lesson called Futures” (11 year old participant, WA 2029 Conference children and youth strand).

Tom Lombardo, Ph.D.

A. Biography

Tom Lombardo, Ph.D. is the Resident Futurist Faculty, as well as the Faculty Chair of Psychology and Philosophy at Rio Salado College in Tempe, Arizona. He is also the Director, in partnership with his wife Jeanne Lombardo, of the *Center for Future Consciousness* based in Scottsdale Arizona.

He attended the University of Connecticut in Storrs, Connecticut, graduating with a double major in psychology and philosophy, and was awarded the outstanding psychology major in 1969. From there, he moved to Minneapolis, Minnesota where he attended the University of Minnesota with

a major in psychology. During his final year he was awarded a fellowship to study with the world famous psychologist James J. Gibson at Cornell University. Gibson, with his emphasis on ecological systems, evolution, and the principle of reciprocity, was the first significant influence on Tom's thinking. Tom also studied philosophy of science at the University of Minnesota and was highly influenced by the work of Paul Feyerabend and Thomas Kuhn in the history and philosophy of science. He graduated with a Ph.D. in psychology and a minor in the philosophy of science in 1973.

During the period 1973 through 1991, Dr. Lombardo taught undergraduate psychology at Indiana University Northwest, served as an alcohol and drug therapist at several hospitals, became the Chief Psychologist and Educational Director at John Madden Mental Health Center, and finally served as Professor and Dean at Forest Institute of Professional Psychology. During this time, Dr. Lombardo developed numerous courses, supervised both clinical psychologists and teaching departments, and designed whole programs of education. He also received numerous awards for his teaching. In his years working in mental health, Dr. Lombardo became well-versed in theories and practices dealing with human growth and self-development. His first book *The Reciprocity of Perceiver and Environment* (1987) became the best selling volume in Lawrence Erlbaum's *Resources in Ecological Psychology* and was translated into Japanese. Also, during this period Tom continued to be an avid reader of science fiction, evolutionary theory, systems theory, and of special note, studied the work of J. T. Fraser, philosopher of time. He was deeply influenced by Fraser's evolutionary theory of time. Also, Tom studied and integrated in his writings and teaching the Taoist philosophy of the *Yin-Yang* with Gibsonian ecological psychology and Fraser's theory of time. By the end of the 1980s, he had synthesized in his mind an evolutionary-ecological systems view of human psychology and natural processes. Based on his interests in science fiction, history, cosmology, evolution, and time, as well as an overall strong interdisciplinary education, the groundwork was laid for becoming a futurist in the following decade.

Tom moved to Arizona in 1991. Aside from being appointed chair of psychology and philosophy at Rio Salado College, he was also given responsibility for the associate degree capstone course, Integrative Studies. In 1992, he decided to select the topic of the future for the Integrative Studies course, and designed a comprehensive, interdisciplinary course on the future, as well as writing a textbook for the course in the next few years. He read and studied futurist literature extensively during the early years as he evolved the course and wrote the textbook.

He recently published two books on the future: *The Evolution of Future Consciousness* and *Contemporary Futurist Thought*. These two books provide a detailed psychological study of the human capacity to think about the future and trace this capacity from prehistoric times to the present,

concluding with a comprehensive review of contemporary theories and visions of the future. *Future Survey* described the books as “awesome”, “heroic”, and an “ambitious synthesis”; Wendell Bell used the terms “brilliant” and “masterpiece”; and Tim Mack, President of the World Future Society, refers to the books as “innovative, thoughtful, enlightening, and entertaining.”

Dr. Lombardo is a member of the World Future Society and the World Future Study Federation, an Affiliate of Communities for the Future and the Foundation for Conscious Evolution and an Educational Advisory Board Member for the Acceleration Studies Foundation. This last year he was also appointed to the Editorial Board of the *Journal of Future Studies*.

B. Influences/Bibliography

Lombardo’s major influences include Walter Truett Anderson, Wendell Bell, Hazel Henderson, Kevin Kelly, Alvin Toffler, Francis Fukuyama, Gregory Stock, Frank Tipler, and Mihalyi Csikszentmihalyi. Dr. Lombardo was particularly attracted to theorists who balanced the scientific-technological and the psychological-humanistic in their thinking. Throughout most of the 1990s he taught, as well as supervised other faculty in teaching, the general course on the future that he designed. In the late 1990s he was awarded a grant from the Maricopa Community Colleges to develop a Futures Institute and supporting website for Rio Salado College. In 1998 and 1999, he participated in the Sedona Conferences on the future of education, media, and technology, giving the keynote address the first year.

C. Questions Regarding the Field

Lombardo believes that the recent focus on technology and the future of education ignores or minimizes the more critical question for the future of education: How to instill deep knowledge and positive character traits (or virtues) in students? Dr. Lombardo is particularly interested in the enhancement of future consciousness in education which he sees as intimately connected with the development of wisdom traits, virtues, and interdisciplinary knowledge. As a broad assessment and recommendation regarding the future of future studies, Tom would argue for the enrichment and inclusion of much more psychology and philosophical thinking into the discipline. Though not to discount the incredible significance of physical and information technologies with respect to the future (as a Taoist, he is not a dualist who separates mind and matter), Dr. Lombardo believes that much more focus should be put on understanding and guiding the evolution of human psychology and moral character both within human society, and more specifically within higher education and future studies.

Pentti Malaska, MS, Ph.D.

A. Biography

Born 11 April 1934, married, two children, four grandchildren.

Education

MSci (electrical engineering) 1958 and Dr Tech in the University of Technology in Helsinki 1965. Doctor of Business economics honoris causa University of Vaasa 2005.

Career

Engineer for high voltage laboratory of the university of Technology and for a power company, energy researcher in the Academy of Sciences. Doctor studies of predicting the growth of the electric energy need and structure of consumption in Finland and optimizing the generating capacity expansion. Professor of mathematical economics and operations research at Turku School of Economics (1966-1998), vice-rector of the university, leader of an advisory group to the State Bank of Finland on energy policy, several advisory appointments (energy policy, technology, futures research) in the public sector and government, consultancy appointments and cooperation with companies on strategic management, scenario work and visionary management, co-founder and first director of the Finland Futures Research Centre, co-founder of the Finland Futures Academy and chairman of its board and member of the International advisory board, participation in EU futures research projects and conduction of futures projects financed by the Finnish Academy of Science and other partners, conductance of doctorate studies in futures research at the university.

Citizen activities

Finland Technical Society and working with the World Federations of Engineering Societies for the first UN environment Conference in Stockholm 1972, Club of Rome, co-organizer of its conference on Global Challenges in Helsinki 1984, honorary member of the club 2005, co-founder and the first president of the Finland Society for Futures Studies, the secretary general and President of the World Futures Studies Federation 1990-1997, member of the World Futures Society, cooperation with futures societies in different countries, Kondratieff Foundation in Russia and the Black Sea University in Romania.

Traits of evolution of futures thinking in publications:

Prospects of Future of Technical Man (1971), *Ecosystem and technosystem - a problematic relation*, (1972), *Philosophy of Technology*, (1973), *Strategic management of companies* (1973), *Outline of A Policy for the Future* (1985), *Multiple Scenario Approach and Strategic Behaviour in European Companies* (1985), *Scenarios in Europe - Who Uses Them and Why?* (1984),

Engineering solutions to modern problems of environment (1985), *Africa Beyond Famine*. A report to the Club of Rome (1989), *Market Economy or Capitalism* (1993), *Futures Beyond Poverty - Ways and Means Out of the Current Stalemate*. World Futures Studies Federation, Nairobi, Kenya (1997), *Socio-cultural Transients of Work in the Late-industrial Period - USA and Finland as the Empirical Cases* (1999), *Futures Research Outline of a Post-Modern Idea of Progress* (2001), *Visionary Management* (2001), *Methodology for Analysis of Critical Industrial Ecology Trends: An Advanced Sustainability Analysis of the Finnish Economy* (2001), *The Future of Humankind* (2002), *Knowledge and Information in futurology* (2002), *Synchronic - Diachronic System Analysis* (2003), *Europe in the Global Battle of Sustainability: Rebound Strikes Back*, Terra2000 report to EU-commission (2003), *Strategic Vision: a Third level of Management* (2004), *Advanced Strategic Thinking*, *Visionary Management* 2004, *Theory of Futuribles* 2005, *Club of Rome Dossiers 1965-1985* (2007), *From Strategic Thinking to vision for Europe* (2007), *Modern Futures Approach and Human Security Ethos* (2008).

B. Influences/Bibliography

How did I become a futurist, or did I? Jerry Glenn signed for years already his e-mails by J. Glenn/futurist, and he asked me some day why do I not do the same, be a futurist in my identity? Oh, I had never thought of it, but why not indeed,... but was I really? I hesitated. In Finnish no equivalent term for futurist exists (curiously enough there is no particular future tense either in Finnish, which perhaps refers to that the future is not yet unfolded!). After a thought, I was convinced that the identifying myself as a futurist would be quite okay, combined with an commitment that this may not in any way restrict my identification as human. Above, I have collected all the evidences to inform and judge the matter.

My futures awareness started to evolve from my energy engineering and energy economics prediction tasks and research. It was methodologically engaged in quantitative modelling and operations research. Later more speculative rational thinking of the future of mankind and technology came along especially with the Finnish, *European and world Engineering Federations* for the declaration to the UN Environment conference in Stockholm. Joining the *Club of Rome* in 1972 opened new vistas and relations to develop my futures awareness and cooperate with futures-minded colleagues. Aurelio Peccei and Alexander King were, the founders of the club, were most visionary and humanistic thinkers of their time.

Futures awareness awoke in the Finnish society at large at the same time, though there were also strong opposing forces against that kind of awareness seemingly disturbing someone's businesses. Futures awareness in general is a dangerous business, though some applications for particular purposes sell extremely well! That I can say from my own experience.

A third important source of my futures awareness and identity as a futurist comes from participation in and contribution to citizen activities, i.e work of societies. Already in the 1960s some enlightened persons in Finland had joined the WFS in US and many academic people in different fields became more interested in futures studies. This led finally the universities to establish a society for futures researchers, the *Finland Society for Futures Studies* in 1980, which I served as the first President for ten years.

In 1990 I was elected as the Secretary General of the WFSF with Jim Dator as President, and the Federation's office moved from Hawaii to Turku. I enjoyed working with all the active people of the federation and with Jim of course. I feel that we got a lot of fun from our cooperation in addition to the good results from members' point of view. Next I became elected for some reason not fully known to me as President for the term after Jim. So it just happened in Barcelona. I loved to work with the good people around despite of some difficulties with some others. Eleonora Masini, the long standing former Secretary General and President, has been my good advisor and mentor all the time, but of all others I have to refer to my publications.

As a curiosity I will mention "negotiations" with North-Korean authorities in Pyongyang concerning an idea of a futures conference arranged jointly by the North and South Korea - the idea was initiated already during Budapest conference. A visit to Pyongyang offered an exciting adventure, which I have not told before. In general the international work with future-oriented people all over the world, financed by the Finnish ministry of education and some donations, had a vital catalytic impulse to the domestic development in Finland. Could the WFSF future be built on the same kind of catalytic cooperation with a base country today?

The catalytic effect appeared as willingness to advance futures research projects, establishing a futures research centre (the Finland Futures Research centre, FFRC), initializing a universities network for academic education (the Finland Futures Academy, FFA and its International Advisory Board), establishing a Parliamentary future committee, participating in EU-project of futures interests, starting doctor's program and studies. All these followed the evolution of the futures awareness.

Well, this is also the story how I possibly became as a futurist.

C. Questions Regarding the Field

I agree with Fabienne: "We are writing the history of the future without even knowing it". I believe that the current and next generations will be smart enough to make bright humanistic choices, which will bring also a new rise on futures consciousness and FS.

Eleonora Masini, JD

A. Biography

Education

- Degree in Law, Constitutional Law, Relation between the Church and the Italian State, University of Rome (1952)
- Specialization in Comparative Law, University of Rome (1953)
- Specialization in Sociology, University of Rome (1969)
- Laurea Honoris Causa University of Budapest for Economic Sciences (1998)

Personal Information

Born in Guatemala. Three sons

Membership in Professional Associations

- World Futures Studies Federation (WFSF)
- International Sociological Association (ISA)
- Italian Sociological Association (AIS)
- Club of Rome (Honorary Member)
- World Academy of Art and Science (WAAS)
- World Wildlife Fund (WWF)

Main Activities

- Professor of Futures Studies at the Faculty of Social Sciences, Gregorian University (1976-2004)
- Professor of Human Ecology at the Faculty of Social Sciences, Gregorian University (1991-2004)
- Tutor of P.h.D's. Theses in Futures Studies, Faculty of Social Sciences, Gregorian University (1997-2004)
- President of the World Futures Studies Federation (1980-1990)
- President of the European Division of the World Academy of Art and Science (1991-1994)
- Coordinator of the Project "The Futures of Cultures" for UNESCO (1991-1994)
- Member of the Executive Council of the Inter University Center at Dubrovnik (1984-1996)
- Chairman of the Futures Research Committee of the International Sociological Association (1978-1997)
- Coordinator Futures Studies course at the Interuniversity Centre of Dubrovnik (1975-1991)
- Coordinator of the UNESCO project WIN Women's International Network, Emergency and Solidarity (1995-2005)

Other Activities

1975-1980 Secretary General World Futures Studies Federation
1976-1981 Consultant Pontifical Commission Justice and Peace

1990-1993 Chair of the Executive Council of World Futures Studies Federation 1982-1990
 1981-1992 Coordinator of the Project "Household Gender and Age" of the United Nations University developed in Argentina, Brazil, Chile, China, Colombia, Ivory Coast, Kenya, Sri Lanka
 1985-1986 Fulbright Professor in Minnesota at the St. Cloud University, Futures Studies and Women and Development
 1980 - 1995 Member of the Editorial Board of the professional journal : "Technological Forecasting and Social Change".
 Member of The Editorial Board of the professional Journal "Futures" 1980- 1997
 Member of the Scientific Council of Italian World Wildlife Fund (to this day)
 Vice -President of the Social Sciences Committee, UNESCO Italian Commission (to this day)

Some Publications

- Reconceptualizing Futures : a Need and a Hope, in World Futures Society Bulletin, Vol. XVI, n. 6, 1982.
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B. Influences/Bibliography

I was working as a sociologist in an Italian Institute and specializing in Social Change and realized that the theories, at the time, were not sufficient to understand changes, which were already becoming rapid as well as interrelated in the world at that time (end of the 60's).

So I started searching (no internet at the time) and found the writings of Bertrand de Jouvenel, Robert Jungk, Johan Galtung and wrote to them. Hidetoshi Kato subsequently invited me to one of the first meetings in Kyoto in 1970. In that occasion I met many people including, Jim Dator, John and Magda McHale. So my interest in Futures Studies became greater.

I started to search for other thinkers on the future and was influenced by the ones mentioned as well as by Fred Polak, Ossip Flechteim, Gaston Berger and all the French school as well as USA thinkers such as, Olaf Helmer, Peter Druker, Victor Ferkiss, Hazan Ozbekhan and psycho-sociologists as Donald Michael and sociologists as Robert Merton, Daniel Bell and Peter Lazarsfeld and then others as Rahni Kothari from India. Aurelio Peccei founder of the Club of Rome of which I am still honorary member, as well as the world know Italian mathematician Bruno De Finetti.

I could name many others at the same time; these are the ones that had a strong influence on my futures thinking. I am now working on the thinkers about the future in the Middle Ages in Europe.

C. Questions Regarding the Field

The field of Futures Studies has had, without doubt, different moments. Such differences have been related also to where in the world they were elaborated. The better know part of FS is the one developed after the Second World War 2. At the same time it is, at least, important, to recall that many people had already been working in the area from different points of view and different scientific angles. The roots of developments of FS in the present were already in the making in the past. As an example FS

in the 70's presented the roots of the dichotomy that I see now very clearly in its development. When the energy crises in 1973 occurred, FS was mainly centred, Western countries, Europe and USA, on issues related to economic and social development, which presented great differences between the West on one side, and Eastern Europe and the South (as it was then called) countries, on the other. This interest brought to the fore front values and related choices with their differences impacting on social changes and consequent political issues. The main interest of scholars or people involved in general in FS was pushed by the desire and will to change the world and its dysfunctions and injustices.

After 1973 started the great worry about energy lack and its consequences and at the same time the fear that economic growth might not go on in time with the same increasing trend as in the 60's and beginning of the 70's. There was the beginning of a lack of worry about the differences in the world even in the presence of great events such as the Chilean revolution and the violent death of Salvador Allende, which were strong indicators of peoples needs for freedom of choice. This was the time, in my view, of the beginning of the strong dichotomy in FS, which of course reflects also the changing worldviews in many countries.

The dichotomy, as I see it, is today as follows:

1st a strong trend towards FS being able to offer methods as well as results to decision makers mainly in the economic areas, enterprises and corporations and to a lesser degree to governments.

2nd trend, which I would call the academic trend, tending in supporting formation in FS of experts and scholars, at different levels and specially at university and postgraduate studies level, while at the same time developing a strong conceptual basis and striving towards the development of FS in its rigorous development which meant, at the same time, interest in the responsibility of scholars and hence the ethical component of FS.

These trends are not necessarily clearly divided as I have described them. In some cases, as can be seen in different studies in Europe, both the scholarly and strategically oriented studies are combined and this is true for some of the University groups.

I see the blending between the two trends developed in only a few of the USA centres or groups and in mainly university located such as The Political Science Department in Hawaii where Jim Dator has formed many excellent scholars in the area, or at Huston University where a Peter Bishop is forming many of the young futurists in Futures Studies.

In Latin America where FS are in great development, the trends towards the dichotomy I have tried to describe are perhaps even more clearly defined. As I think that this region will be able to have an important impact not only

within its borders, but moreover at the international level, what is happening in Latin America in FS, should be followed closely as it is very interesting and indicates the ways that FS maybe moving in the future.

In conclusion, in many parts of the world, FS is living, in my view, a time of weakening of the scholarly and conceptual trend and rather a strong development in the economic and governmental oriented trend, which is becoming more visible. This is the case of countries, which were part of USSR and with the exception of Hungary where the two trends are very well blended with an emphasis on the formation aspect. The same applies to the rich Middle East countries, where the economic trend is very strong. As to Africa I do not feel I can write much today but my view in terms of the past was of a time of interest in a human rights oriented trend with some efforts to influence governments.

I have tried to describe the wide trends that seem to be emerging at the world level in Futures Studies and, if I try to look at the successes, I would say that there seems to be a greater awareness in the world about the need for such studies and at the same time a variety of understanding of what they are about and what are their aims. Again the variety is great and maybe many are not well known in their basic work while the results are known better. The bases and methodologies and research efforts on which they are built are very important and should be better known.

In terms of successes I would say that many Universities stand out for their work in the area as well as for the wide use of their products. I have already mentioned some in USA as for Europe I would mention the PREST, Manchester Institute of Innovation Research at the Manchester University, which is both engaged in research and in formation of young scholars from different parts of the world and this is also due to many excellent scholars starting from Ian Miles.

In Europe the Corvinus University in Budapest with the Futures Studies Department, also carries out a remarkable activity both in research, used amply in the country, and formation for young scholars who are also from the neighbour countries. It also has many excellent scholars starting from Erszebet Novaki. I also wish to underline the remarkable work done, for years, by the Finish Futures Research Centre at the Turku School of Economics as well as by the more recent Finland Futures Academy. Their work was started by Pentti Malaska, also a remarkable scholar, and has had a great impact in the country, not only at the academic level with the formation of many young scholars from Finland as well as from many other countries, but also in relation to enterprises which are also well know at the world level. The research of the Finish Future Research Centre has an impact at the government level with a relevant presence in Parliament. The work of the Finish Future Centre is important at the European level as

well as beyond also due to the summer courses organized at a very good level.

Indeed many are the activities of “foresight” developing in Europe, at different levels and within many institutional environments, supported by the increased interest in the area of FS by the European Community. In this connection the work of coordination exercised by IPTS (Institute for Prospective Technological Studies) in Seville within a wider spectrum than the name indicates.

I have concentrated on Europe’s activities in FS as I think it is an interesting development. I am sure other from other regions will concentrate on the ones they mostly operate in.

Vahid V. Motlagh

A. Biography

Iranian translator and futurist, Vahid Motlagh, is a decision consultant and chief analyst at AtiNegaar Think Tank, Tehran, Iran.

Vahid Vahidi Motlagh was born on May 20 in 1979 in Qom, the largest center for Shi'a Islam scholarship in the world. The city lies 156 km by road southwest of Tehran, the capital of Iran.

Motlagh was educated in the public schools of Qom. Upon graduating from Moallem High School his interest in and curiosity about science and technology led him to consider universities instead of seminaries to pursue his formal education.

In 1997 Iran was in the process of reconstruction after the Iran-Iraq war and Motlagh was just beginning to forget all the sad news and atrocities that virtually took the scene of every day life after Iranian Revolution in 1979. In the summer he took part in the nation-wide examination for entrance to state universities. Motlagh could get a relatively top score and was admitted to the prestigious technical university of Iran, Sharif University of Technology in Tehran to major in civil engineering.

It was a thrilling experience for him to learn a lot from professors as well as from his fellows in the classrooms and the dormitory. In 1999 something unexpected happened which later on radically changed his prospective career. His father, a daily paid worker in bakeries, got sick and suffered from severe depression. As the first son he had to take over many of his responsibilities.

Motlagh began searching for some kind of freelance job. The good command of English and written Persian led him to a job position as a translator and

editor in a think tank. The think tank, IranAsef.org, was established and run by a veteran R&D manager, Aghil Malekifar, who envisaged contributing to a knowledge-based society in Iran by "offering a unique blend of interdisciplinary research in futures studies".

The multiple tasks at IranAsef, among them the translation of some chapters of "New Thinking for a New Millennium" and monitoring RAND's updates, opened his mind to a new field of knowledge that, in his view, could be more "effective" than civil engineering. In fact he gradually realized that people could design and maintain physical structures through applying the hard knowledge of civil engineering, but through applying the soft knowledge of policy analysis only a few number of wise men could design and sustain social structures and even engage themselves in "nation-building" projects. In terms of technology, which is broadly defined as an area of research and action that aims to transform natural or social reality, he tended to focus on "soft technologies" that could potentially transform social instead of physical realities.

Later on he asked the family to emigrate from Qom to Tehran. After family emigration his time was shared among policy-relevant documents, civil engineering courses, and family affairs. Nonetheless, as an autodidact, his education in futures studies, decision analysis, and strategic planning continued in IranAsef and reached a milestone by translation of "Value-Focused Thinking" by Ralph L. Keeney into Persian. Value-Focused Thinking had been used as the primary decision making method in a major Scenario Planning project for the US Air Force called "Air Force 2025". His translation of this book introduced him as a young member of policy analysis circles in Iran. The good news was that, because of his contributions to the think tank, he received two national gold medals, one for his outstanding intellectual achievement, and the other for the best scientific book translated by a university student. And the bad news was that he received an official warning letter issued by the civil engineering department that indicated a pending expulsion.

Right before cutting off his professional relationships with IranAsef in 2003, he also translated "Global Technology Revolution" and "Shaping the Next One Hundred Years", both published by RAND, into Persian language.

Motlagh finally managed to graduate from Sharif University of Technology in 2003 and shortly after was conscripted into the I.R. Iran Police Forces. While working in the R&D office of the education department in command headquarters, he started blogging regularly about science and technology trends and events, decision making techniques, and socioeconomic images and actions. Motlagh, according to MohammadReza Mirzaamini, President of Sharif Think Tank, "is among the first who has seriously promoted futures studies in the Iranian communities as his writings and translations have benefited experts and laypersons equally well".

After a couple of months of blogging, he accepted an offer by Hussein Mola from the Iranian Futurist Foundation (Ayandehnegar.org), based in Stockholm, to transform his weblog into a website, VahidThinkTank.com, just to better and more easily share his knowledge with other Iranians and Persian-speaking individuals around the globe. Through this media he began to carry the futures message to the public at large. Today this media is a popular website among Iranian and Persian-speaking individuals who look for updates and state-of-the-art in futures studies.

In addition to translating, editing, publishing, and offering short seminars, Motlagh has been involved in strategy consulting projects and long-term planning for both public and private clients such as the Center for High Tech Industries, General Inspection Organization, and Electric Power Technology Development Center in Iran.

In a recent contribution, he took part in a project supported by the Center for High Tech Industries to "identify and design the optimal algorithm for Foresight exercises" with an emphasis on Road Mapping and Scenario Planning methods.

They focused on the identification of key dimensions of scenario planning projects. There are a number of variables which ought to be considered before kicking off a new project, especially in order to provide strategic intelligence on the road map of technology development. Some of these variables belong to the general class of objectives, for example learning vs. planning, competitor focused vs. environment focused vs. organization focused. Others belong to the general class of approaches such as normative vs. explorative, qualitative vs. quantitative, intuition-based vs. data-based and so on. And finally, policy analysts have to deal with the context specific variables, for instance, organization cultures which can be classified into leader-driven, plan-driven, and evidence driven organizations. Having a good knowledge of these variables, they did a cross impact analysis to determine the most affecting variables and the most affected variables. The findings helped them recommend a general algorithm for the high tech sectors of Iran and pick among the most common approaches for scenario planning (i.e. Intuition Logic, Trend Impact Logic, and Cross Impact Logic).

In 2007 Motlagh became the editor in chief of the Persian Encyclopedia of Futures. The Persian Encyclopedia of Futures, including more than 150 entries, is a proprietary product. The ownership is partly for AtiNegaar Think Tank, a private consultancy specialized in Technology Foresight, Roadmapping, and Scenario Planning, to which Motlagh is currently affiliated. The major aim of the encyclopedia is to create and maintain a knowledge base of futures studies for Persian-speaking professionals. Motlagh focused on key words, biography of the notable thinkers, profile of the notable institutes, and also introduced in detail some suggested and common methods.

Motlagh was introduced to the World Futures Studies Federation by Richard Slaughter from Australia and Wendell Bell from the USA and became a member as of August 2007.

"In a world where the importance of integrity seems to be lacking with many in government and business, Moltagh seems to have developed "old-fashioned" integrity standards." said Ralph Keeney, Research Professor of Decision Sciences, in 2006 in a supporting letter for him. Keeney added, "Motlagh is very creative and has numerous intellectual abilities". He is currently single and lives with his parents in Tehran.

B. Influences/Bibliography

Motlagh's first experience with the futures occurred as soon as he was 17 years old, when he bought a Persian translation of Future Shock by Alvin Toffler from a bookstore in Qom. Although this book was partly fascinating he felt unsatisfied because of the absence of a reasonably cogent theory behind the author's claims. However, his later exposure to a number of professional works and his direct involvement in the translation of a few books helped him to extend and deepen his knowledge. The bellow list is a collection of some important books which have shaped his thinking and ideas about futures studies.

1- Keeney, Ralph L. 1992, "Value-Focused Thinking: A Path to Creative Decisionmaking", Harvard University Press.

In this book, Keeney shows how recognizing and articulating fundamental values can lead to the identification of decision opportunities and the creation of better alternatives. The intent is to be proactive and to select more attractive decisions to ponder before attempting any solutions. Keeney describes specific procedures for articulating values by identifying and structuring objectives qualitatively, and he shows how to apply these procedures in various cases. Value-Focused Thinking was used in 1995 as the primary decision-making method in a major Scenario Planning project by the US Air Force, namely Air Force 2025.

2- Slaughter, Richard A. 1996, "New Thinking for a New Millennium" Routledge.

This book is a collection of insightful articles by leading futurists who began their career back in 1970s. The authors discuss the history, the premises, and the key works of futures movement across the globe. They also offer a number of guidelines for critical study and research of the futures in order to promote the culture of foresight and social innovation.

3- Bell, Wendell 2003, "Foundations of Futures Studies: Vol. 1 "History, Purposes, and Knowledge", Transaction Publishers.

In this book, Bell compiles a comprehensive introduction to the field. He masterfully covers its history, basic assumptions and promises. Bell also reviews and examines the epistemological issues of post-post-positivism in the philosophy of science and art as far as they are relevant to futures studies and practices.

4-Schwartz, Peter 1991 "The Art of the Long View: Planning for the Future in an Uncertain World", Doubleday Currency.

The author reviews his first-hand experience of working in Shell's planning department back in 1970s. He claims that the best way to prepare for the future is Scenario Planning and suggests an intuition-based step by step method to accomplish this.

5-Schwartz, Peter 2003, "Inevitable Surprises", Gotham

Schwartz in this book argues that the future is foreseeable, and that by examining the dynamics at work today we can predict the inevitable surprises of tomorrow. He gives some intriguing examples of such surprises that lie ahead in the horizon.

6-Dewar, James, 2002 "Assumption-Based Planning: A Tool for Reducing Avoidable Surprises", Cambridge University Press

Assumption-based planning (ABP) is a tool for identifying as many as possible assumptions underlying the plans of an organization and bringing them explicitly into the planning process. Dewar presents a variety of techniques for rooting out those vulnerable, crucial assumptions. He also presents steps for monitoring the vulnerable assumptions of a plan by taking actions to control them where possible and preparing for potential failure where control is not possible.

7-Anton, Philip, S., Richard Silberglitt, James Schneider, 2001, "The Global Technology Revolution: Bio/Nano/Materials Trends and Their Synergies with Information Technology by 2015", RAND

A global technology revolution is currently changing the world. This book discusses the broad, multidisciplinary, and synergistic trends in this revolution, including genomics, cloning, biomedical engineering, smart materials, agile manufacturing, nanofabricated computation devices, and integrated micro systems.

8-Cornish, Edward, 2005, "Futuring: The Exploration of the Future", The World Future Society.

This book is a readable and understandable introduction to the field for the lay persons. Cornish captures some important issues such as the negative influence of fatalism in every day life of people and the role of futurists to correct this mind-set through applying their rational and analytical tools for exploration of tomorrow's world.

9- Lempert, Robert J, Steven W. Popper, Steven C. Bankes, 2003, "Shaping the Next One Hundred Years: New Methods for Quantitative, Long-Term Policy Analysis", RAND

The checkered history of predicting the future has dissuaded policymakers from considering the effects of their decisions more than a few months or years ahead. Lempert and his colleagues at RAND review weaknesses and strengths of traditional methods, from narratives to scenario analysis, and show that all of them fail to address the multiplicity of plausible long-term futures. They reframe the question "What will the long-term future bring?" as "How can we choose actions today that will be consistent with our long-term interests?". The major theme of this book is to demonstrate how human-machine cooperative reasoning provides powerful analytic support to humans' innate capacity for "what-if-ing."

10- Kurzweil, Ray, 2006, "The Singularity Is Near: When Humans Transcend Biology"

Ray Kurzweil has been one of the most respected and provocative advocates of transhumanism who emphasizes the role of technology in our future. He examines the union of human and machine, in which the knowledge and skills embedded in our brains will be combined with the vastly greater capacity, speed, and knowledge-sharing ability of our creations.

Ruben Nelson

A. Biography

By training and inclination, I am a big picture strategic thinker and activist. I have spent my life exploring and seeking to understand the forces that are now re-shaping our lives, our world and the human future. This means that I am among the pioneers of serious futures research in Canada. Today, I am Canada's most experienced teacher and practitioner of futures research and strategic foresight.

My primary *motivation* is to enable persons and organizations with very different backgrounds to come together respectfully and openly to shape a common future - one that actually fits the emerging requirements of the 21 Century. The *question* at the heart of my life is, "*Just what would we do, if we knew what we were doing?*"

To answer this question, I have been forced to try to develop understandings of this moment of history and what it requires of us that are powerful and reliable enough that, when acted upon, I (and others) will actually help, rather than make things worse. I have found that this is far easier to say, than to do. In short, for me, the point of being a futurist is to increase our capacity to act wisely in the present.

I got this way because I was raised in Calgary, loved by strong women and remarkable men and nurtured in global communities that valued sound minds, bodies and spirits in the service of the work of enhancing the human condition - The United Church of Canada, YMCA, Boy Scouts, Queen's University, Student Christian Movement, Association for Humanistic Psychology, Canadian Association for Futures Studies, the Meridian Institute and Foresight Canada.

Some of the highlights of my life:

- 1960 I co-chaired Canada's first futures conference -- on the future of the University.
- 1961 Heather and I were married. The fact we are still together says more about her than me.
- 1963 - '64 Heather and I lived in India where I studied philosophy and theology in order to learn something about the deep differences between Eastern and Western Cultures and about human cultures in general.
- 1966 Our first child - Michael - was born. I invited Robert Theobald to spend a weekend leading a workshop on the *Coming Crises in Western Civilization*.
- 1970 Our second child - Miriam - was born. I wrote the first Canadian article on *paradigm change*. I also moved to Ottawa to be a member of a two person team to re-conceive social policy for Canada. This introduced me to the world of government and public policy.
- 1975 I think I was the first person to apply the category of *paradigm change* to whole cultures in the Cultural Paradigms Project - a project that explored the long-term evolution and transformation of whole cultures.
- 1976 I helped found the Canadian Association for Future Studies and subsequently was its third President. For several years, we administered CAFS from our Ottawa office.
- 1986 I became a Board Member of the Association for Humanistic Psychology. Later, I was elected its President, the only Canadian to have been so honoured. I also put together a dozen senior executives as the *Western Canada Futures Exploration Group*. We had a 18 month romp, during which I took great delight in introducing these folks to some of my more interesting friends - Brendan O'Regan, Naomi Remen, Willis Harman and Don Michael among them. I designed and launched the Post-Industrial Future Project - the only Canadian research project to explicitly explore the view that we are slowly and mostly unknowingly

evolving from an Industrial Society/Economy to a truly post-Industrial culture. The sponsors ranged from Air Canada, to several government departments, to the United Church of Canada.

- 1992 I ran for the leadership of the Alberta Progressive Conservative Party.
- 1997 I conceived and directed a two year process - the Capitalizing on Change Project - to engage several hundred Albertans in three questions: (1) Is ours really a time of profound societal change? (2) If so, can we do anything about it, i.e. is the change merely *out there* like gravity or is it also *in here*, as in friendship? (3) If we can make a difference to the future, then what organizational infrastructures, support systems and communities will call and enable a whole jurisdiction to voluntarily embrace the work of aligning their lives, society and economy with the emerging character and requirements of the 21st Century?
- 2005 I directed a fresh assessment for the National Research Council of Canada of the complex and swampy strategic issues Canada and the world will face to 2025.
- 2007 In Alberta, we now have an ecology of organizations to support this work - a foundation, a research centre and a supportive community.

Over the years, I have offered strategic advice to senior executives in every sector and province of Canadian society. My clients have run from Prime Ministers, to Presidents, to Church Primates. I am equally at home in caucus rooms, boardrooms and church basements. I am the only Canadian who is a Fellow of the World Business Academy, the World Academy for Art and Science and the Meridian Institute for Leadership, Governance, Change and the Future. I have been honoured by Rotary International as a Paul Harris Fellow and by the Calgary Alumni of Queen's University with the Johnson Award. I am a director of the Canadian Association for the Club of Rome and the Enviros Wilderness School. I am also President of Square One Management Ltd., the Creating Tomorrow Foundation and The Alliance for Capitalizing on Change, and Executive Director of Foresight Canada.

B. Influences/Bibliography

In addition to the substantial influences noted above, my life has been shaped by the fact that I am well-trained in philosophy, political theory and theology. This has deepened my grasp of the evolution of human life, consciousness and culture. I am also a visual learner, an INFJ (Meyers-Briggs), and an 8 (Enneagram).

My graduate thesis in the mid 1960s led me to the view that whole cultures can be understood as evolving and developing in a way that is analogous to the development of persons. Broadly speaking I my view is that social realities are socially constructed. The implication for the future is clear - not only must we acknowledge that all cultures are human co-creations, even if unconscious ones, we must also get good at co-creating the world's first intentional culture, one that is truly sustainable to boot, and we must

do so openly and transparently. This view informs my intellectual understanding and my practice as a futures-oriented policy advisor and strategic foresighter.

More specifically, I have been profoundly shaped by those who have been exploring structures and evolution of human consciousness and culture:

- The Hebrew-Christian tradition. As I have come to understand it, its deepest concern is with the formation and evolution of a godly consciousness in individuals and a people.
- Peter Berger - the American sociologist. For example, see, his book with Thomas Luckmann, *The Social Construction of Reality*, New York, Anchor, 1966; and with Brigitte Berger and Hansfried Kellner, *The Homeless Mind: Modernization and Consciousness*, Toronto, Random House, 1973.
- T.S. Eliot - the great English writer and poet. For example, see *The Idea of a Christian Society*, New York, Harcourt Brace and Company, 1940.
- Northrop Frye - the great Canadian literary critic who spent his whole life chewing on the evolving structures of human consciousness. For example, see *The Secular Scripture: A Study of the Structure of Romance*, Cambridge, Harvard University Press, 1976; *The Great Code: Bible and Literature*, New York, Harcourt, 1983; *Words and Power: A Second Study of the Bible and Literature*, New York, Viking, 1990.
- John Macmurray - the great Scottish philosopher. For example, see his 1953-'54 Gifford Lectures, *The Self as Agent*, London, Faber and Faber Limited, 1957, and *Persons in Relation*, London, Faber and Faber Limited, 1961.
- Wilfred Cantwell Smith - the great Canadian historian of religion. For example, see *Towards a World Theology: Faith and the Comparative History of Religion*. Philadelphia, Westminster Press, 1981.
- Stephen Toulmin, *Human Understanding: The Collective Use and Evolution of Concepts*, Vol.1, Princeton, Princeton University Press, 1972.

Strange as it may seem, while I read futures literature to keep up with my field, it is not that which feeds and stretches me most deeply. I find much of it to be thin, rather than substantial.

C. Questions Regarding the Field

I find it helpful to distinguish between the general futures movement and the more scholarly field of futures studies/futures research. The former is exemplified and nurtured by folks such as the World Future Society (WFS); the latter by the Club of Rome and the World Futures Studies Federation (WFSF). The former caters to citizens who have an ache in their gut about the future and want to do something about it, and managers who want to capitalize on emerging trends; the latter to persons who, while they share the gut ache, are committed to exploring, understanding and enhancing the human prospect - to use Robert Heilbroner's phrase. Of course they overlap.

The success of the WFS as a not-for-profit organization is undeniable. I see two major reasons: the wide-spread excitement and worry about the future that developed in North America in the 1960s and the editorial skills of Ed Cornish, its founder. Ed was skillful in feeding the general concern about the future through *The Futurist* and the annual WFS conferences. However, the future of the WFS is not a given. Up until recently, the WFS has had the general futures field to itself. Now, the general ache and concern has escaped into virtually every nook and cranny of our culture. For example, many of its sub-sets - environment, education, leadership, business, etc, - have futures-oriented networks, conferences and publications of their own. The distinctiveness of the WFS brand is diminishing.

The initial success of both the Club of Rome and the WFSF is rooted in several factors. Among them were:

- The early excitement of the time for the idea that as human animals we are co-creating a future willy-nilly, and that we had best pay attention and get good at this work or we will be in deep, deep trouble.
- Both were founded by truly great leaders - some of the world's best minds were attracted to them.
- At the time of founding, there was no competition - the capacity to undertake serious and systemic reviews of large subjects simply did not exist. As with the WFS, both CoR and WFSF are experiencing rough weather. As I look back over forty years, I see that the early excitement has waned, the world's best minds are no longer members of either organization and the capacity to undertake serious and systemic work in large and complex subject areas is slowly growing. The lesson I draw is that there is no point in trying to breathe new life into old forms. Neither the Club of Rome, nor the WFSF will succeed in the 21 Century as a renewed version of their original vision. As with all life-forms in a new st circumstance, the choice is adapt or die. Given that there is heroic futures-oriented work to be done in the 21 Century - work that is not st now being done - I vote for (and work for) adaptation. To do so we need to freshen the deepest sensibility that lay behind the Club of Rome and the WFSF, while we are willing to allow the present forms to die. The question is not, *"How do we revive the WFSF or even futures studies?"*, but *"What are the forms that would embody the energy that inspired the formation of the WFSF in the 1960s?"* With a renewed commitment to the human future, we must make two moves.

First, using the best that we know, we need to take stock afresh of the actual and emerging conditions, features and strategic challenges of the world in 2007 and the emerging world of the 21 Century. Questions such as these must be asked and answered: *"What are the truly st strategic issues of the 21 Century?"* *"What technologies are now available and emergent that st were inconceivable in 1965?"* *"Who cares enough to act and do they call themselves 'futurists'?"*

Second, again using our own best practices, we must conceive afresh the

work to which those who are dedicated to a truly human future are called and the vehicle(s) for undertaking and sustaining the work.

As we wrestle with these things in Canada, we have found:

- It is worth making the effort, as there is a huge need that is unaddressed. Other than climate change, no existing organization owns or is tasked to deal with the truly strategic issues on which our future as a species rests.
- It is possible to nurture a responsive community of interest into being. Many people are more ready than they know to respond to a call to shape a truly human future.
- The language of *strategic foresight* is heard and accepted more easily than that of *futures research* or *futures studies*.

Therefore, we are hard at work developing a new Canadian not-for-profit networked organization and community - Foresight Canada. We see it as Canada's first research centre and think tank devoted to using the lens of strategic foresight to identify, explore, understand and respond courageously to the truly strategic issues of this moment of history.

We are willing to share what we are learning with anyone who cares to ask, and to learn from and with those who will accept us as colleagues. Our commitment is to work with and through the WFSF as it seeks to die and be reborn as a significant player in and for the 21 Century.

Erzsebet Novaky, DSci

A. Biography

Professor Nováky (1945), DSc (1991), PhD (1980), Master Teacher (1999) has been the head of the Futures Studies Department (FSD) of Corvinus University of Budapest (CUB) since 1989. She was head of the Complex Futures Studies Research Group supported by the Hungarian Academy of Sciences (HAS) between 1999 and 2006.

She is the President of the Habilitation Council of Social Sciences at the CUB, and of the Committee on Future Research of the HAS. Erzsébet has been Member of the Advisory Board at the HAS since 2002 and of the International Advisory Board of the Finland Futures Academy. Between 1997 and 2005 she was a member of the Executive Board of World Futures Studies Federation. She was the course director of the Budapest Futures Course series between 1999 and 2005.

Erzsébet's on-going projects include developing and implementing futures methodology - as for example methodology of complex socio-economic futures, participatory FS - and two specific future themes, "Change and future", and "Hungary beyond tomorrow". She has various publications related to futures methodology, to the education of FS as well as to long-term future perspectives of Hungary. On the education field, Erzsébet gives

FS courses at various academic levels (including PhD level), and encourages the organisation of alternative future-oriented activities in order to raise futures awareness among younger generations.

She was the project leader of 13 scientific projects. Her publications are: about 20 books, 100 articles, 300 conference papers and studies in the field of the follows: change and future; participatory futures studies; further development of methodology and methods in the field of complex socio-economic forecasting; reliability of forecasts; Hungary beyond tomorrow, future orientation of human beings, the future of vocational education and training.

1.2. FSD at CUB

The FSD is a research and educational unit for developing and teaching FS at the CUB. In the remarkable year of 1968, by introducing a research seminar of Futurology for students, the first seed of the future-oriented education was planted by Géza Kovács, the professor of the National Planning Department of the Karl Marx University of Economic Sciences, which was the legal predecessor of the CUB.

Our main research topics are as follows:

<ul style="list-style-type: none"> ▪ Future-orientation of people ▪ Paradigms in FS ▪ Futures in economic theories ▪ Space and time in FS ▪ Participatory FS ▪ Complex evolutionary modelling ▪ Neural networks on the futures field ▪ Foresight methods ▪ Scenario building ▪ Forming strategies through visionary management 	<ul style="list-style-type: none"> ▪ Change and future ▪ "Hungary beyond tomorrow": actualization of Hungary's future image in order to support social political strategies ▪ Hungary 2025 ▪ Weak-signals in sub-cultures of the youth ▪ Unconsciousness and consciousness in FS ▪ Aggression and future forming
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The projects do not only involve futurists, but experts coming from various fields of sciences as well as students and non-academic public. Achievements are published and are being systematically built into our education activity.

The FSD offers a wide range of courses at the CUB - "FS", "Social-Economic Forecasts", "Education and Future", "Visions and fields in the world economic eras", "Social Forecasts", "Environmental Modelling", "Economic Forecasting", "Social Forecasting", "Economic Forecasting and Strategic Management". We have a special course on "Forecast and Foresight" at MA level, and a "FS" program at PhD level (under accreditation).

In all of our semesters we teach around 800 students on under-graduate, graduate, post-graduate and PhD level. The basic FS course offers an overview of the theoretical and methodological bases of FS while the other courses focus on specialized themes. Some courses are delivered in English, for example "Business FS", which is delivered in the framework of the "Community of Management Schools" Program.

Our on-line courses ("How can we explore the future?", "Futures Research Methods") form part of an international network being directed by the Finland Futures Academy.

B. Influences/Bibliography

Since the beginning - on the basis of research and education - institutional and personal cooperation has been established both within Hungary and at the international level (WFSF, Rome, Hawaii, Buffalo, New York, Turku, Warsaw, WFS, The Club of Rome, etc.). The department managed to reach out to various experts, opinion-leaders, decision-makers, students as well as to the attentive public.

Eleonora Masini, sociologist, member of the Club of Rome, former president of the WFSF (1980-1990) and Professor Emeritus of the Pontifical Gregorian University of Rome contributes to the work of the FSD as Honorary Doctor of the CUB.

The FSD-team shares the view that future-orientation should be an integral part of today's and tomorrow's society, and that future can be consciously shaped by the thinking together of people who feel inner responsibility for it. Since the notion of the department is to raise awareness of and responsibility for the future, concepts, research results, methods and tools to support and influence decision-making processes are being continuously disseminated.

C. Questions Regarding the Field

In the 21st century scientific, economic and political **cooperation** for the better future of the world is the most important. Therefore:

- strengthening the scientific collaboration among countries, particularly among the ex-socialist European ones in the field of FS, mainly in futures methodology and methods,
- participation in the WFSF international research projects and education programs through Internet; organizing international and bilateral scientific discussions on the syllabi of FS through Internet; regular publication,
- to common acts for the world future together with UNESCO,
- endeavour to activate young people in the work of WFSF.

David Passig, Ph.D.

A. Biography

David Passig is Head of the Graduate Program in ICT and Education, Bar-Ilan University, Israel.

I have been consulting for the last 20 years many private and public entities to futurize their decision makings. Currently I am the strategic counsel for the Commissioner for Future Generations at the Israeli Parliament.

I have been teaching future technologies in the last 15 years at the Bar-Ilan University. Currently I am the Head of the Graduate Program in Information and Communication Technology at the Bar Ilan University, Israel.

www.biu.ac.il/edtech

My PhD is in Anticipatory Anthropology from The University of Minnesota. My Supervisor was Prof. Arthur Harkins. Graduated in 1993.

I am considered to be the only certified Futurist in Israel and am invited to speak daily in front of a variety of audiences I have a graduate course on Future Methodologies for several years at the school of Education, Bar Ilan University, Israel.

I have developed a Future's Research methodology named "Imen-Delphi" (ID). This methodology reflects the newer paradigm in Futures' Thinking. The ID aims at structuring a procedure through which a group of experts or stake holders could invent preferable futures, as opposed to the classical "Delphi" forecasting technique with which a group of experts is engaged in figuring out the most probable future. I am conducting various case studies with a variety of entities, ranging from private to governmental institutes, to enhance its reliability and validity in helping various groups shaping their futures. The following papers are samples of the ID methodology in the published literature:

1. Passig, David (1997) Imen Delphi: A Delphi Variant Procedure for Emergence. *Human Organization*. Journal of the Society for Applied Anthropology. Southern Methodist University. Dallas, TX. Spring, 56 (1) pp. 53-63.
2. Passig, David (1998) An applied Social Systems Procedure for Generating Purposive Sound Futures. *Systems Research and Behavioral Science*. The Official Journal of the International Federation for Systems Research. Winter 15 (1) 315-325. Wiley & Sons. England.
3. Passig, David & Sharbat, Aviva (2000) Electronic-Imen-Delphi (EID): An Online Conferencing Procedure. *Education Media International* (EMI). The official Journal of the International Council for Educational Media (ICEM) 37 (1) pp. 58-67. Routledge.

I have also developed a Taxonomy of Future Cognitive and Learning Skills. This Taxonomy attempts to refresh Blooms taxonomy of cognitive skills to reflect future needs. It also suggests a new thinking skill that was not included in Bloom's categories, which I named Melioration. It is assumed that this skill will be much required from the alumni of our educational system in the future. This Taxonomy is being taught worldwide at teachers' colleges and MBA programs. I am developing tools with which one can measure the skill and develop it as well. The following papers are samples of the taxonomy that I have published:

1. Passig, David (2007) Melioration as a Higher Thinking Skill to Enhance Future Intelligence. *Teachers College Record*. Columbia University. Volume 109, Number 1, January 2007, pp. 24-50.
2. Passig, David and Cohen, Lizi (2006) Innovative Combinations' Test: A Tool for Measuring the Melioration Skill. *Teachers College Record*. ID Number: 12776.

B. Influences/Bibliography

Journal of Future Studies - Graduate Institute of Futures Studies, Tamkang University, Tamsui Campus, Taipei, Taiwan - www2.tku.edu.tw/~tddx/jfs/
Futures Research Quarterly - World Future Society - www.wfs.org
Futures - The journal of policy, planning and futures studies - www.elsevier.com

International Journal of Forecasting - Official Publication of the International Institute of Forecasters - www.elsevier.com

Journal of Time Series Analysis - www.blackwellpublishing.com

Cybernetics & Human Knowing - A Journal of Second Order Cybernetics & Cyber-Semiotics - www.imprint.co.uk/cyber.html

Plausible Futures Newsletter - Includes topics on robotics, artificial intelligence, nanotechnology, biotechnology, and sciences that could dramatically affect the future - www.plausiblefutures.com

Systems Research and Behavioral Science - The official Journal of the International Federation for Systems Research. Publishes articles on new theories, experimental research, and applications relating to all levels of living and non-living systems - www3.interscience.wiley.com/cgi-bin/jhome/71007203

Cycles Magazine - The Foundation for the Study of Cycles Magazine is published quarterly. www.foundationforthestudyofcycles.org

Club of Amsterdam Journal - www.clubofamsterdam.com

Future Generations Journal - <http://home.um.edu.mt/fgp/Journals.html>

Futuribles - www.futuribles.com/journal.html

General Systems Bulletin - <http://iss.org/bulletins/>

On the Horizon - an international quarterly publication providing analysis and comment on the future of post-secondary education - www.emeraldinsight.com/info/journals/oth/oth.jsp

Foresight - The journal of future studies, strategic thinking and policy - www.emeraldinsight.com/info/journals/fs/fs.jsp

The following are my favorite institutes that study the future:

The Public Policy Forecasting - www.publicpolicyforecasting.com
Copenhagen Institute for Futures Studies - www.cifs.dk/en/
The Arlington Institute - www.arlingtoninstitute.org
Center for Responsible Nanotechnology (CRN) - www.crnano.org
Extropy Institute - www.extropy.org
Foresight Institute - www.foresight.org
Futuribles - www.futuribles.com
The Long Now Foundation - www.longnow.org
Millennium Institute - www.millenniuminstitute.net
Millennium Project - www.unmillenniumproject.org
AC/UNU The Millennium Project - www.acunu.org
SETI Institute - www.seti.org
The Venus Project - www.thevenusproject.com
Institute for the Future - www.iftf.org
BSR » Business for Social Responsibility - www.bsr.org
The Arlington Institute - www.arlingtoninstitute.org
Santa Fe Institute - www.santafe.edu
RAND Corporation - www.rand.org
RAND Europe - www.rand.org/randeurope
Foresight Nanotech Institute - www.foresight.org
SRI International - www.sri.com
the gff - www.thegff.com
Foresight - www.foresight.gov.uk
Egypt Center for Future Studies - www.future.idsc.gov.eg
The Interdisciplinary Center for Technology Analysis & Forecasting, Tel-Aviv U. - www.ictaf.tau.ac.il
The Center for Futurism in Education - Ben-Gurion University, Israel - www.bgu.ac.il/futuredu/
Thematic Network on Foresight on Information Society Technologies in the European Research Area - <http://fistera.jrc.es>
European Perspectives in the Information Society - <http://fistera.jrc.es>
Finland Futures Research Center - www.tukkk.fi/tutu/
Swedish Institute for Future Studies - www.framtidsstudier.se
Futurreg - www.futurreg.net
The Futures Academy, Dublin Institute of Technology - www.dit.ie/futuresacademy
Future Generations Alliance Foundation - www.global-alliance-foundation.com
Hudson Institute - www.hudson.org
Worldwatch Institute - www.worldwatch.org
Institute for 21st Century Agoras - www.globalagoras.org
Club of Amsterdam - www.clubofamsterdam.com
European Foresight Monitoring Network - www.efmn.info
European Foresight Knowledge Sharing Platform - www.efmn.info
Future Humanity Institute at Oxford University - www.fhi.ox.ac.uk
European Futures Observatory - www.eufo.org

Jordi Serra del Pino. MA

A. Biography

I started my exposure to futures studies very young, I was 16 when I entered at the “Centre Català de Prospectiva”; there I got to know the World Futures Studies Federation (WFSF). In 1984 I went to one of the International courses the WFSF was organizing yearly in Dubrovnik (now Croatia, back then still Yugoslavia) and that changed my life; after that I was determined to be a futurist. It still took some time to finish my degree, attend more conferences and courses before I could fulfil my dream.

In 1992 I went to Hawaii to complete a Master doing Jim Dator’s program: “Alternative Futures”. My professional life as a futurist starts at 1993 back in Barcelona; the beginning was hard, as a matter of fact it was very unsure if one could make a living out of doing futures studies. I worked as a freelance for a while, combining it with other activities, but in 1998 I founded “Periscopi de prospectiva i estratègia” a futures consultancy firm located in Barcelona where I am still working.

Looking back all those years in perspective I can say that there has been some improvement and that, in a slow and fragmented way, futures have been gaining some recognition; but there is still a long way to go. My professional work has been very diverse, and this is just the way I like it, working with all sort of clients, projects and sectors has been stimulating and have forced me to become a true generalist.

Yet, after all this time some constants arise:

- ✓ Nobody ask you for a future project unless he has a relevant or transcendent decision in front of him. Only when there is a big question about the future is when we want to know which are the expectable consequences.
- ✓ Future Studies is most useful in theses cases. Its main application is to deal with the uncertainty associated to those decisions’ alternative courses of action, which is why I like to talk of prospective as “uncertainty management”. At heart futures is not as much about uncovering the future as it is about helping us to better decide in the present.
- ✓ But futures may fall short if you want to advise someone about the best future course of action, in those cases you also need to bring in strategy, which will help you to give direction or purpose to the future studies previous results.

- ✓ All together, form what I call the “Periscopi method” which is a blend of decision analysis, futures studies and strategy.

B. Influences/Bibliography

My futures school is the Manoa one, I have been labelled as a Datorling but I take pride in being one of his disciples. I like Dator’s approach to the future with the emphasis in technology and social values and, most of all, the ironic perspective; that is why -to me- doing futures has to be fun. But I’m also very continental, I do work in futures studies because I do want to influence the future, if I foresee a danger I want to avoid if I see and opportunity I want to take it; in this sense, I’m also very Masinian (as in Eleonora Masini).

Later on, my exposition to the Pakistani powerhouses like Sohail Inayatullah and Ziaddin Sardar has been very influential as well and has me to rethink the whole foundation of futures studies. Mostly, they made me realize up to which point futures was a Western endeavour and that futures had to transcend it in order to be truly global.

Jan Huston has also made an impact on me with his Evolutionary Systems Theory that offered me a new way to think and work about the future as they allow me to combine natural and social sciences in an innovative way.

Finally, I cannot forget another big influence in my futures work, science fiction, firstly through my interest in comic books, but in cinema and literature as well. I find in them inspiration for ideas and questions that help my work to progress. In other words, the future has always been something quite familiar because I have seen it, watch it, read it, enjoy it.

C. Questions Regarding the Field

Futures main mistake has been its failure to create a normative body of knowledge agreed by a significant (or majoritarian) portion of its practitioners. Not only we are divided and scattered, but we also fight over minor things; on top of that, we hurt the consolidation of the disciplines by reinventing it cyclically (like with foresight).

Yet, its main success has been to offer a new way to conceive and work for the future, a paradigm in which human election is relevant and, just for this, we should be grateful to it.

Now its time for future studies to leave the nest in the West and look for new blood elsewhere. Asia is clearly the place for the near future, there are important schools and prominent thinkers; but Iberoamérica is bursting with an incredible richness and has the advantage of a common language, I think that some relevant developments will take place in this region. Finally, there is Africa, its capacity to vision and create a new future for the

continent and their inhabitants will signal the future of the Earth as a whole.

Lawrence (Larry) Taub

A. Biography

I got into the futures/foresight field through history. Born in 1936 in Newark, New Jersey, USA. I graduated New York University in History, with minors in Political Science and French language. After completing one year at Harvard Law School, I switched from law studies to French at the Sorbonne, lived over a ten-year period in France, Denmark, Sweden, India, Israel, and New York City, and finally settled in Japan (for 32 years). During this time, I became proficient in several languages, and worked mostly as an English teacher, Japanese-English translator, and commercial narrator. In between the Japan years, I lived 2 years in Munich, Germany and a year and a half in Australia, becoming semi-proficient in that language as well (joke).

In the mid-1970's my interest in history was rekindled, which eventually led to a macrohistorical approach to it. As a result of thinking along macrohistorical lines, I discovered three macrohistories, which I eventually published as a book in 1995, republished in 2002 with editorial revisions. Since macrohistory is one method of futures/foresight work, I found myself in the futures/foresight field, and became a member of the WFSF in 1997.

I presented a paper about the macrohistories at the 15th WFSF Conference in Brisbane, and submitted an article about the macrohistories in the *Journal of Futures Studies* (November, 2001). Since 1988, most of my time and energy has been focused on researching and writing the book (title: *The Spiritual Imperative: Sex, Age, and the Last Caste*), publishing it, and marketing it.

My interest in macrohistory intensified at the end of the '70s, as I observed that, since that time until the present, the broad trends in power-politics, economics, culture, religion, and sexual and social relations seem to have pretty much followed the scenario(s) that the three macrohistories indicated would be the most likely to evolve worldwide.

As a result, I have concentrated almost completely on these and similar macrohistories, and have paid little attention to other forms and other areas of futures/foresight work.

I have given talks, been interviewed, have appeared on Internet TV, have had articles about the book appear in learned and popular periodicals and newspapers, and the book is being published in Japanese and Spanish.

B. Influences/Bibliography

The main influences have been my observations of trends in most countries and in most fields, living in many different countries, and the theories of certain individuals, mainly, Shulamith Firestone (co-founder of the radical feminist movement and author of *The Dialectic of Sex*), the late Ellen Willis, Aviva Cantor, and Ken Wilber. Other influences have been the work of John Kenneth Galbraith, Daniel Bell, and Alvin Toffler, particularly through their books *The New Industrial State*, *The Coming of Post-Industrial Society*, and *The Third Wave*, respectively. My knowledge of Jewish history has also had a strong influence on my thinking.

C. Questions Regarding the Field

On the one hand, I am fairly optimistic about the future of the field, mainly because of the depth of theories of people in it like Rick Slaughter, Sohail Inayatullah, Wendell Bell, Hazel Henderson, and others, which are critical of and go beyond the more media-prominent futurism which tends to be overly focused on technological wonders and business prospects. I also sense a growing future awareness in the field of education. But since I am neither an academic, a businessperson, a scientist, nor a “professional futurist”, my sense of the field’s future progress is limited.

On the other hand, I think the field suffers because its sense of the present and possible future scenarios is hampered/distorted by a lack of macrohistorical thinking and a lack of people in the field who have or focus on developing a macrohistorical sense. The result is an incomplete and relatively superficial understanding of the past and present, and so an inability to distinguish what is possible, probable, and fairly certain about the future. I am hoping that a greater awareness of the macrohistories I’ve discovered and wrote about may help remedy these lacks.

Marjolein B. A. van Asselt, Ph.D.

A. Biography

My research interest and expertise is in the interplay between science, society and politics as well as in sustainability issues. My PhD “Perspectives on uncertainty and risk” addressed the issue of uncertainty in decision-support, in which the futures studies activities of the Dutch Environmental Planning Agency (RIVM) served as case-study. In 2001, I received a career grant from the Dutch Science Foundation (NWO) for a 5 year research program on futures studies practice. Together with my PhD researchers Philip van Notten and Susan van ‘t Klooster we performed research among futurists in order to better understand challenges and pitfalls, as well as ways in which challenges and pitfalls are and can be addressed.

I was member of the Dutch advisory council RMNO (2001-2004), which council also had a special interest in futures studies, as well as dealing with

uncertainty and risk in policy making. Since 2005, I have been a member of the Young Academy of the Dutch Royal Academy of Sciences (KNAW). I enjoyed visiting scholarships at the James Martin Institute at Oxford University (2005) and the King's Centre for Risk Management (2007). I participate in different societies, among which the Society for Risk Analysis (SRA) and the Society for Social Studies of Science (4S) and in various editorial boards.

Since January 2007 I hold the Risk Governance Chair at the Faculty of Arts and Social Sciences of Maastricht University. Within the context of my professorship, I continue to pursue interdisciplinary research on the governance of uncertain risks, such as controversy pertaining to agro-biotechnology (genetic modification) and electromagnetic fields (associated with mobile communication technology), and approach the topic of futures studies from that angle. I am especially interested in the role of, as well as interactions with experts, the use of scientific expertise, and specifically in the question of how experts and other actors deal with the issue of uncertainty. Futures studies are key topic in my research, since futures studies attempt not only to operate in the interface between science and expertise, i.e. are created for the exact purpose of 'informing' policy, but moreover because these studies include and expose expertise about the future, which is by definition uncertain. The fields of risk research and futures studies are academically quite distinct fields, and my ambition is to bridge the two research traditions, as I see potential for synergy.

Supported by a grant of the Dutch National Science Foundation (NWO) I will dedicate the upcoming year to a book on futures studies practice, which will be published with Earthscan.

My current team in futures and foresight work at Maastricht University consists of PhD researchers Susan van 't Klooster and Karin van der Ven. Susan van 't Klooster is in the final stages of her PhD project, during which she sought and gained insight into the actual practice of scenario-building in a particular governmental agency in the Netherlands. Karin van der Ven has recently embarked upon a four-year research project (2008-2012) in which she aims to investigate and compare the role of foresight think tanks in relation to policy in different EU countries. Together with Susan and Karin, we are member of the editorial board of website 'Toekomstverkenning Online' - *Future Exploration Online* (www.toekomstverkenning.nl). This is a web-based databank, in which we provide an inventory of Dutch foresight studies, complemented by academic reviews. With Lucas Cornips, a research master student, I'm involved in an analysis of future studies from the perspective of what in Dutch is called 'de maakbare mens', on behalf of the Young Academy. With professor Hub Zwart, Centre for Society and Genomics, I'm involved in drafting a research project which aims to analyse future-oriented novels as input to foresight in the field of genomics. In this

way, it can also be assessed whether futures studies and science fiction are really different and/or whether fruitful synergies are possible.

At the Faculty of Arts and Social Sciences of Maastricht University, I currently coordinate and teach *Risk and Uncertainty*, a course in the Master Public Policy and Human Development, at the Maastricht Graduate School of Governance. In addition I hold several guest lectures and workshops on the topic of futures studies and uncertain risks.

B. Influences/Bibliography

During the first stages of my career my thinking about foresight and futures studies was much influenced by my practical experience with the topic, primarily those with scenarios in the field of environment and sustainability. Through this I would argue that I have been influenced significantly by the work performed by the Club of Rome, the so-called system dynamics and integrated assessment tradition in futures studies.

I find it hard to define such a specific influence for the later part of my career. At the moment, I tend to be influenced by the *Futures* journal, and to a lesser extent *Technological Forecasting & Social Change*, in terms of ideas and theoretical references, rather than by a certain individual or theoretical perspective.

C. Questions Regarding the Field

My insight is that futures studies is a practice that is here to stay. Although much can still be said about the actual practice of futures studies, a further challenge in my opinion is to focus on a better interaction between practice and policy. Futures studies should aim to move 'beyond promises' and to accommodate better embedment in actual policy context. To that end, it is needed to better understand actual policy-oriented foresight practices. Academic research focused on the actual use of foresight in policy can further theoretical reflection on the use of foresight to policy, and improve the interaction between the two realms. Understanding futures studies as a particular form of regulatory science or boundary work (both terms are derived from the field of Science & Technology Studies) would enable to benefit from insights in other interdisciplinary fields. Furthermore, I'm convinced that both the field of futures studies and the field of risk research can benefit from more exchange.

Verne Wheelwright, Ph.D.

A. Biography

Grew up in the outdoors of Idaho and Oregon, USA, and still enjoys skiing and scuba diving. He attended the University of Oregon and graduated with

a BS in Business Administration. He began a business career that eventually became international in scope.

Enrolled in graduate school at the University of Houston Clear Lake graduating with an MS in Studies of the Future in 2000. He subsequently enrolled at Leeds Metropolitan University to do research in personal futures, earning a PhD. in 2006 for his dissertation: Personal Futures: Foresight and Futures Studies for Individuals.

At the present, Verne is writing, speaking and conducting workshops in Personal Futures. He is the author of The Personal Futures Workbook and A Personal Futures Workshop and is currently writing a book on personal futuring. Verne and his wife Betty live in Harlingen, Texas.

Verne has a web site at www.personalfutures.net and recently started a blog at yourpersonalfuture.blogspot.com. He is a member of the World Future Studies Federation, the Association of Professional Futurists, and the World Future Society.

Articles:

- (2006) "Personal Strategic Planning", *FO/futureorientation*, **06** 34-36.
- (2006) "The Forces That Drive Our Lives", *FO/futureorientation*, **04** 56-59.
- (2006) "A Personal approach to Strategic Foresight", *The Futurist*, September-October.
- (2006) "Your Personal Future: A Step By Step Guide", *The Futurist*, May June.
- (2006) "Images of the Future", *FO/futureorientation*, **03** 44-46.
- (2006) "Personal Futures", *FO/futureorientation* **01** 73-75.
- (2003) "Ageing: a personal futures perspective", *Foresight*, **5** (5).
- (2000) "A Profession in the Future?" *Futures*, **32** 913-918.
- (2000) "Software for Futurists - Scanning", *Futures Research Quarterly*, **16** (2) 63-70.

Books, book sections, chapters or essays

- (2006) *The Personal Futures Workshop- CD Edition*, Personal Futures Network, Harlingen.
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- (2004) "Your Map to the Future", In: Shostak, A. (ed.). *Tackling Tomorrow Today*, Langhorne, PA: Chelsea House Publishers.
- (2001) *Research Information Management with Biblioscape*, C. G. Information.
- (1999) "The Mont Fleur Scenarios", In: Glenn, J.C. and Gordon, T.J. (ed.). *Factors Required for Successful Implementation of Futures*

Research in Decision Making, Atlanta: Army Environmental Policy Institute 15-7.
 (1999) "The Slidell Priorities Convention", In: Glenn, J.C. and Gordon, T.J. (ed.). *Factors Required for Successful Implementation of Futures Research in Decision Making*, Atlanta: Army Environmental Policy Institute 26-7.
 (1999) "San Angelo Regional/Urban Design Assistance Team (R/UDAT) Project", In: Glenn, J.C. and Gordon, T.J. (ed.). *Factors Required for Successful Implementation of Futures Research in Decision Making*, Atlanta: Army Environmental Policy Institute 27-9.

Thesis / Dissertation

(2006) *Personal Futures: Foresight & Futures Studies for Individuals*. 1-278. PhD Dissertation, Leeds Metropolitan University, Faculty of Business and Law.
 (2000) *Professionalization of Futurists: Plausible Scenarios for the Future*. Master's Thesis. University of Houston Clear Lake, School of Studies of the Future.

B. Influences/Bibliography

The individual futurist who has had the greatest influence on my work has been Dr. Peter Bishop of the University of Houston. After receiving my Master's degree, Dr. Bishop encouraged me to continue my education and research, and has continued to be supportive.

Although my work has been influenced by a great number of futurists and writers, a few stand out.

Bell, W. (1997) *Foundations of Futures Studies: Human Science for a New Era*, Transaction Publishers, New Brunswick. (This has been an essential guide. History, ethics, theory, all in one place.)

Bezold, C., Peck, J. and Olson, R. (1998), *Wiser Futures*, Institute for Alternative Futures, Alexandria VA. (Bezold, Peck and Olson have a very down-to-earth approach to scenario development. Easy to understand.)

Dator, J. (1993) "From Futures Workshops to Envisioning Alternative Futures", *Futures Research Quarterly*, (Winter). (This is just one piece of a large body of work. Jim's newspaper columns and other articles are very instructive, and closer to personal futures than most work.)

De Jouvenel, B. (1967) *The Art of Conjecture*, Basic Books, Inc., New York. (For me, this is the basic futures handbook)

Glenn, J. C. and Gordon, T. J. (ed.) (2003) *Futures Research Methodology*, Washington: American Council for the United Nations University. (Great reference to futures methods. It sets a standard.)

Goodstein, L. D., Nolan, T. M. and Pfeiffer, J. W. (1992) *Applied Strategic Planning*, Pfeiffer & Company, San Francisco. (Step-by-step strategic planning,)

Jungk, R. and Mullert, N. (1987) *Future Workshops: How to Create Desirable Futures*, Institute for Social Inventions, London. (Jungk encouraged the common people get involved in the future. This book on workshops influenced me to design a system that would fit into workshops.)

Morrissey, G. L. (1992) *Creating Your Own Future.*, San Francisco: Berrett-Koehler Publishers, 1992. (Morrissey provides an effective approach personal strategic planning. His emphasis is on career planning and lacks a futures perspective.)

Schwartz, P. (1991) *The Art of the Long View*, Currency Doubleday, New York. (The classic for scenarios.)

Strauss, W. and Howe, N. (1991) *Generations: The history of America's future 1584 to 2069*, William Morrow and Co., New York. (Strauss and Howe brought an important perspective to understanding the importance of cohort influences.)

C. Questions Regarding the Field

Over the past ten years, the field has, in my opinion, matured substantially. I have met and corresponded with futurists all over the world. The Future Studies, since its inception, has focused largely on “big picture” or macro-futures. I believe that there is a large, unfilled need for micro futures; futures for individuals. My own research has focused on developing a system that individuals can use to understand the use and application of futures methods to their personal lives, but I feel this research is merely the beginning. I believe that there is a need for further research on how best to help individuals apply futures methods to their lives.

There is also a need for research to understand and quantify the benefits of using futures methods at the individual level. For example, could high school and college drop-out rates be reduced if young people planned for their personal futures and acquired a long term perspective? Would a long-term perspective and a personal plan for the future help prison inmates return to society and avoid returning to prison? Can individuals in large organizations learn long-term thinking and the use of futures methods by first using a personal futures approach?