

# FUTURE *takes*

*Your international platform for future related issues*

## Throwaway Economy in Trouble

by Lester R. Brown

In nature, one-way linear flows do not long survive. Nor, by extension, can they long survive in the expanding economy that is a part of the earth's ecosystem. One of the distinctly unhealthy economic trends over the last half-century has been the emergence of a throwaway economy. First conceived following World War II as a way of providing consumers with products, it soon came to be seen also as a vehicle for creating jobs and sustaining economic growth. The more goods produced and discarded, the reasoning went, the more jobs there would be.

What sold throwaways was their convenience. For example, rather than washing cloth towels or napkins, consumers welcomed disposable paper versions. Thus we have substituted facial tissues for handkerchiefs, disposable paper towels for hand towels, disposable table napkins for cloth ones, and throwaway beverage containers for refillable ones. Even the shopping bags we use to carry home throwaway products become part of the garbage flow.

This one-way economy depends on cheap energy. It is also facilitated by what are known in the United States as municipal solid waste management systems. Helen Spiegelman and Bill Sheehan of the Product Policy Institute write that these "have become



**Reduce • Reuse • Recycle**

a perverse public subsidy for the Throwaway Society. More and better waste management at public expense is giving unlimited license to proliferate discards. Today these systems collect

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## The Globalization of Science, Spirituality and Peace

by Joseph R. Giove

Major technological and humanistic developments are converging as a result of globalization. This holistic blending of the East and the West is making the scientific exploration of certain spiritual practices, which are aimed at creating peace, a viable pursuit. With a rigorous Western approach to practical application of Eastern wisdom, world peace may well be within our reach.



Giove

This article first discusses the cur-

rent state of societal disharmony from an unusual perspective, one that considers the underlying subjective issues of conflict. Next it addresses how the science of consciousness is transforming our worldview. Then it presents how an East-West convergence of science, technology and spirituality gives humanity an unprecedented opportunity to bring sustainable peace to our communities and to the world.

### A Different Model of Societal Disharmony

The peace-through-strength approach, both in our communities and on the world scene, continually

*See Globalization, continued on page 10*



Mack

## From the Desk of Tim Mack, President, World Future Society

At each year's conference, the World Future Society has worked to increase the participation of Young Futurists, as they represent the best hope the world has in building a positive future. This year's conference sets a new standard of commitment by the Society to the Next Generation of

futurists worldwide. International groups such as the Global School Network, Future City and Future Problem Solvers will be bringing students to learn and teach us all about the promise of the future and their innovative approaches to realizing that promise. From creative education to new communications technologies, from blogging trends to the science of science fiction, the adults of tomorrow are going to be both participants and presenters in shaping their own futures.

By this I mean intense discussions of the future of the education system...by the students themselves, and how new technologies can help to transform it. The construction of a global virtual museum and collaboratory, the building of other types of synthetic worlds for modeling, socializing or saving the world, and in depth analysis on some of the less successful forecasts of the previous century are all part of this youth-relevant programming. Of course, I mean youth of all ages, and our discussions of disruptive technologies, anticipatory knowledge and continuous innovation will continue to go forward as well.

Finally, there will be a Young Futurists Center, where youth can connect with each other, conference goers can listen to presentations or view projects, and the workings of other interactive projects like the Implications Wheel room can be examined and discussed and we are working to have wireless technology available there. In the spirit of this focus

on youth and technology, I recently peeled back the years and launched the WFS President's Web Log, as part of the redesign of the WFS Web site. Of course, this being a blog means that I get to put my two cents in, but the real point is to get a dialog started with each other. Please feel free to engage me ([www.wfs.org](http://www.wfs.org)) in spirited debate concerning my wrong-head ideas or my failure to grasp the great trends of the new century. All's fair in futures!

One of our newest partners in the youth programs arena is the Future City program, which is a part of National Engineers Week in the United States (and as part of related activities in India and Japan). But the breadth of this undertaking is beyond mere civil or electrical or any other of the engineering sectors and encompasses the entire range of urban planning and modern governance.

Middle school students use the SimCity (Version 4.0) software to design a working city that addresses and solves energy, transportation, sanitation, housing, etc. challenges facing cities worldwide in the future. They then build models of their city, write essays about their design choices and explain/defend their creation in an oral presentation. What was most thrilling was the response of these young people to the idea that what had been for them a very engaging exercise of a few months' duration could in fact become a life-long way of thinking and problem solving.

To align **FUTUREtakes** with its new role as an international magazine and *de facto* inter-chapter publication, we have discontinued the "From the Chapter President" column. In its place, we invite editorials from officers of all chapters.

## Futurist History Comes Out of the Closet

by Jay Herson

I was cleaning out my closet last month and was surprised to find the World Future Society conference volume for its Sixth General Assembly with the theme "Future View: The 1990s and Beyond." This was the first WFS annual meeting that I attended. It was held in Washington DC July 16-20, 1989.

The conference volume itself was entitled "The Future: Opportunity Not Destiny" and was edited by Professor Howard F. Didsbury, Jr. whose "Introduction to Futurist Methods" tutorial I attended the day before the conference began. The meeting itself was very exciting for a "relatively" young person trying to learn what

futurism was all about. I remember the impressive panel of leading futurists at the opening plenary session making their predictions for the 1990s. I can still see Marvin Cetron predicting that the Berlin Wall would come down in 1993. I had never considered that happening in my lifetime. When the wall fell later that year I became even



Herson

more interested in following futurists if not becoming one myself.

It is fascinating to see what 1989 futurists, most of who are leading

futurists today, were writing about back then. The recurring theme of the conference volume articles was the accelerating change, decline in US productivity and standard of living, and global threats to the environment and peace. An article by Gregg Edwards and David Pearce Snyder entitled "The Enterprising Community: Leading America into the 21st Century" has the thesis that the liberalization of communist political systems appears to offer hope on reduced global tensions while the simultaneous rise of ethnic and sectarian militancy throughout the world threatens to plunge us all into an era of growing international terrorism. While optimistic about third world

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# FUTUREtakes

**FUTUREtakes**, published by the World Future Society (WFS) US National Capital Chapter, brings professions, disciplines, nations, ethnic groups, and cultures together to study the future from a non-partisan perspective. Its articles and program synopses generally explore alternative futures as well as the cross-cutting implications of social trends, technology advances, and policy decisions. In addition, **FUTUREtakes** is an educational resource, complete with discussion points to inspire student and faculty thinking, articles, and research projects. Distribution includes interested individuals as well as selected think tanks, other professional societies, other WFS chapters worldwide, and selected educational institutions.

**FUTUREtakes** welcomes contributed articles that contribute to a reasoned awareness of the future, advance serious and responsible investigation of the future, and promote the development of futures studies methodologies. In addition, **FUTUREtakes** publishes book reviews, future studies exercises, discussion threads, letters to the editor or equivalent correspondence, and summaries of chapter programs. All published material will normally follow the guidelines delineated herein for contributed articles.

To promote free dialog and the exchange of ideas on matters concerning the future, **FUTUREtakes** does not align itself with political parties, political action committees, or political platforms. In addition, **FUTUREtakes** does not advocate particular ideologies or political positions.

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published quarterly  
ISSN 1554-7744

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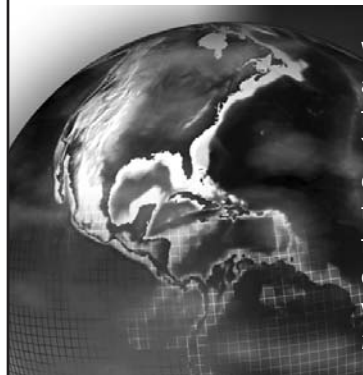
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### Give Us Your Perspective on the Future



We are looking for people with vision in any area of interest or expertise to write a future-oriented article for **FUTUREtakes**. Your vision may come from personal experience, reading, lecture notes, or a topic that in your view is important for the future. Please share your thoughts with our chapter members, preferably in 1000 words or less. Send your contribution to [futuretakes@cs.com](mailto:futuretakes@cs.com)



# On the Future of Palestine, the Middle East, and Our Well-Being

by Arthur B. Shostak, Ph.D.

Futurists understand that the fate of Palestine is on any list of the top ten critical challenges of our times. To make progress is to first clarify the near future of the entire Middle East. Then, weigh leading policy options; five are considered here. And finally, opt for one desirable future, and explain how it might be achieved.

## THE CHALLENGE

1) Unless we do something soon to the contrary, the future of the Middle East would seem to threaten the well being of us all. Or so argues Richard N. Haass, President of the Council on Foreign Relations, in the November-December, 2006, issue of *Foreign Affairs*. He puts it spot-on: "Visions of a new, Europe-like region – peaceful, prosperous, democratic – will not be realized. Much more likely is emergence of a new Middle East that will cause great harm to itself, the US, and the World."

Looking through a glass darkly, Haass forecasts that "militiazation" will continue, private armies will emerge, and terrorism will grow in sophistication. "Democracy belongs in the distant future, if at all." Arab regimes are likely to remain authoritarian, and become more religiously intolerant (and anti-American). Despots will remain propped up by the price of oil: It is far more likely to exceed \$100 than fall below \$40; Iran, Saudi Arabia, and other large producers will benefit disproportionately."

Where Palestine is concerned, "anything resembling a viable peace process is unlikely for the foreseeable future ... the US has lost much of its standing as a credible and honest broker." Instead, a new emerging Iran-Israel rivalry appears critical. Iran is likely to seek to remake the entire area in its image, and it has the potential to accomplish this.

Israel will vigorously oppose the effort (especially as Ahmadinejad, Iran's president, has said Israel will be

wiped away). "Militant groups backed by Tehran seem to be gaining strength all around Israel, bringing Iranian footsteps closer to Israeli ears from inside the Gaza Strip to just across the border in Lebanon." (Simpson, A-1) Accordingly, Israel will become Iran's only significant rival, as for a while, at least, it is the only state in the Middle East with a nuclear arsenal.

## FUTURE-SHAPING POLICY OPTIONS

2) Given this bleak, if also persuasive assessment of current and prospective developments, the urgency of helping Palestine improve its prospects would seem greater than ever. Four leading future-shaping options beckon below, arranged in order of their likely future implementation. The first involves redefining relations between the Palestine Authority and Israel. The second, a step back into willful isolation. The third, a highly risky takeover. And the fourth, an implausible merger. (There is a fifth option, a package of hard compromises, best considered later.)

For openers, the Palestine Authority and Israel could jointly try to trump Hamas and Hezbollah. Today's undeclared civil war in Gaza could soon have weary Palestinians choose – with lingering ambivalence – between a more moderate Fatah and the more militant Islamists of Hamas (and, in Lebanon, Hezbollah). Should Israeli moves (for example, freeing up use of embargoed PA funds, or perhaps a release of a large number of prisoners) have the desired effect, Fatah could soon (honestly) win at the polls. New pro-peace developments could follow, in response to the kind



Shostak

of nonviolence and patient negotiation Abbas counsels so forlornly.

The problems with this scenario are obvious: Hamas and Hezbollah, both of which favor Israel's destruction, will do everything possible to undermine an Israel-Palestinian accord, as will Iran's Islamic Jihad. Israel, in turn, will not tolerate a resumption of urban suicide attacks and rocket damage deep inside the country (as from long-range missiles smuggled into Lebanon). Accordingly, powerful parties on both sides may yet conclude that compromise is unattainable.

This brings us to a second peace-seeking possibility, one soundly criticized recently by former president Jimmy Carter: Namely, a greater-than-ever divide between mutually antagonistic sides. (Carter) The separation barrier that now partitions the land, along with strict required passes, is given credit by Israelis for helping to reduce suicide attacks. A long-standing Israeli belief grows stronger: As the Palestinians lack a functioning government, and as anarchy reins in Gaza, Palestinian dysfunction persists as the main limiting factor on the peace process. Best have nothing more to do with them!

Palestine can have peace-of-a-sort, that is, the cessation of unpredictable Israeli military incursions and air bombings, though at the price of almost complete exclusion from its neighbors' lives (including being barred from valued jobs in Israel, and from commerce, medical care, schooling, etc.). Avigdor Lieberman, the new deputy prime minister, goes so far as to advocate stripping one million Palestinians living in Israel of citizenship and urging them to leave.

The problems with this isolationist scenario are obvious: The Middle East is too small for any such elaborate divide. Borders are porous, and the inter-dependency of the disputants goes back too many centuries to have them soon achieve any meaningful isolation from one another. The scenario has no winners, only losers.

Accordingly, a third policy option

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## Future

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takes the form of a preemptive move, much like America's invasion of Iraq. Able to anticipate everything spelled out above, especially its threat to Middle East oil access, the EU, and/or NATO and/or the UN might employ a large well-armed "peace-keeping" force (Saudi, Egyptian, and Iraqi leaders would presumably first assent). NATO and/or UN "blue helmet" troops (bolstered by EU funds and do-gooders) would arrive to negotiate and supervise a new partition of the land.

The problems with this scenario are obvious: As the mess in Iraq (and that which looms in regard to Iran) makes clear, any occupying force almost immediately becomes unwelcome and becomes itself the target for violence. Second, neither the EU nor the UN has any inclination to get bogged down in the Middle East. And third, it is most likely to result only first in a hudna (tactical truce), and inevitably later in catastrophe.

Finally, there is the option of soon creating a single bi-national state to combine both Israel and Palestine. Based on the principle of one person, one vote, it would presumably model for the world the ability of once-antagonistic peoples learning how to accommodate one another for the larger good.

The problems with this scenario are obvious: Israelis know full well Yasser Arafat's futuristic adage that the Palestinians' best weapon is the womb. They fear that in very few decades the high population-growth rate of new Arab citizens would swamp Jewish interests, and Israelis would find themselves a besieged minority in their former homeland ... a scenario that evokes "Never Again!" images of the Holocaust.

## OUT OF OPTIONS?

3) If the status quo is untenable, as are also four leading options (reframed rivalries, intensified separation, outsider intervention, and a One State Solution), what is there left? Contrary to woeful futurists who insist history

shows that many problems have no solution, the Palestine Challenge might be alleviated, if not entirely resolved, by a multi-party approach well worth the effort.

We Americans must help pave the way by reducing our addictive reliance on Arab oil. Only when the price of a barrel slides significantly down will Arab governments be forced to modernize their countries, and thereby reduce the power of Islamic fanatics within and outside their borders. Moderate Islamists could gain the ear of the Street, and fresh pro-peace thinking might gain support.

Second, European countries must rapidly grant significant economic opportunity to their young Muslims. These men and women, if granted educational and employment opportunities of substance by their host societies could steadily build a model of tolerant, prosperous Islam that would reverberate across the globe, this, the best possible refutation of the Jihadist approach.

While all of these changes are occurring, Israel must sensitively, but firmly withdraw over 200,000 citizens from 40-year old settlements in the occupied West Bank. This time, unlike Gaza in 2005, the pullout should be done in cooperation with a stable and responsible Palestinian government that has extreme terrorist groups under fierce control. Israel must also give up East Jerusalem, and predominantly Arab areas within its pre-1967 borders.

Only in this way can a contiguous, sound, and viable Palestine finally emerge, one strong in law and order... and equal to negotiating a financial compensation-for-land scheme, rather than a land grab, for 700,000 displaced Palestinians and their 5 million or so descendants. Land lost when seven Arab countries tried in 1948 to drive the Israelis into the sea cannot be reclaimed over 60 years later: Compensation can and should be worked out, much as has been occurring all over Europe since the end of WWII.

Naturally, concessions must be agreed to beforehand that will permit

a continued Israeli presence in a very few West Bank enclaves, along with guarantees of personal safety, etc. In return, Israel must step up any and all aid both in and outside its borders to Palestinian schooling, employment, and institutional infrastructure. For in few other places do conditions more demand that two people otherwise antagonistic to one another develop a symbiotic relationship.

Wishful thinking? No, as many future-oriented moderates quietly, if also persistently, support such a course of action. Only the bravery and life-risking actions of the area's many farsighted moderates – Palestinian, Israeli, and others – can finally help renew the entire Middle East. For as journalist Tom Friedman has advised President Bush, "Whether it is Arab-Israeli peace or democracy in Iraq, you can't want it more than they do."

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## POINTS FOR THE CLASSROOM

(send comments to [futuretakes@cs.com](mailto:futuretakes@cs.com)):

- Do you agree with Richard N. Haass's bleak forecast for the Middle East, as summarized by Professor Shostak? Why or why not?
- According to Haass (as summarized by Professor Shostak), oil is far more likely to exceed \$100 per barrel than fall below \$40, with disproportionate benefit to large producers such as Iran and Saudi Arabia. But consider the other possibility. If somehow the price of oil falls dramatically (for example, as a result of changes in consumption and/or the advent of new energy sources), will that also be destabilizing to various governments?

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## Futurist History

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nations' rapid industrialization leading to improved living conditions, they predict that the U.S. will have continued decline in productivity and more than 10% of Americans may be unable to afford decent housing by the year 2000. Skyrocketing health care costs would be expected to impoverish 1/3 to 1/2 of our elderly by 2000 and that the U.S. government had "neither the resources nor resolve to restore our environment." Edwards and Snyder argue that the social democracies of Western Europe should be the U.S. model for the 21st Century. They advocate grassroots Enterprise Communities for economic development rather than depend on government or business to achieve national goals. In a related article entitled "The Labor Movement and the Redesign of the Workplace" Arthur B. Shostak wrote that empowering labor unions and their alliance with productivity researchers was the step needed to improve productivity.

John W. Kiser in his article "Why US Industries Should be Looking at Soviet Technology" sees the Soviet technologies as the way to improve U.S. productivity. He mentions vinyl acetate production methods, semi-conductors, peaceful uses of atomic/nuclear energy, ceramic manufacturing, surgical stapling and food processing among other examples. With R&D costs in the Soviet Union much lower than in the U.S. he advocates partnerships between American industry and Soviet science centers. A footnote shows that Mr. Kiser's primary business was technology transfer between the USSR and US.

William E. Halal in "One World: The Union of a New Capitalism and a New Socialism" is fascinated by Mikhail Gorbachev's comment in 1988 that the world was becoming a "single global organism." He predicted a convergence between capitalism and socialism that will embody similar blends of democracy, social welfare and free enterprise. This convergence was essential to support the coming knowledge based economy. In



## Remembering 1989



- Fall of the Iron Curtain and Berlin Wall
- Tiananmen Square riots in China
- France celebrated its bicentennial as a republic
- California—median price of a home \$196,000; median family income, family of four-\$41,000
- Best Film—*Driving Miss Daisy*
- Best Actress Jessica Tandy in *Driving Miss Daisy*
- Best Actor—Daniel Day Lewis in *My Left Foot*
- Earthquake in San Francisco during the third game of the World Series
- Exxon Valdez spill in Alaska
- *Time Magazine's* Man of the Year—Mikhail Gorbachev
- Soviet withdrawal from Afghanistan
- Kurt Waldheim elected President of Austria amidst complaints of a Nazi-sympathetic past
- Pete Rose accepts lifetime ban from baseball for gambling
- A TV show called *Seinfeld* makes its debut
- First federal computer indictment for a graduate student planting a computer virus
- Voyager II sends back outstanding photos of Neptune and its moon Triton

a related article, "Perestroika in America," Steven M. Clark sees the "public interest partnership" as a way of achieving Halal's vision of a blend of capitalism and socialism. He shows how these partnerships could blend capitalism market efficiency with planning and cooperation for the overall social interest. In so doing he argues that the Soviet Union was not an "evil empire" and although a one-party system prevailed it was a much better provider of some democratic rights and market planning than the one-party dictatorships of South America.

It was Joseph N. Pelton who picked up on globalization and the pre-Internet electronic age in "Future Talk: Coping with Our Electronic Technologies." He speaks of a global electronic village but through satellite telephone and television communication and distributed data processing via telecommunications technology rather than the Internet. He is concerned that world leaders are not at all aware that the world was becoming smaller and

the implications of this trend. He saw the Pacific Rim nations becoming the new focus of global political and economic power in the 21st Century. The principal Pacific Rim powers he saw emerging were Hong Kong, South Korea, Singapore and Taiwan. Interestingly he adds that this group might *possibly* include China and India. Pelton sees the trend of decreasing manufacturing jobs in developing nations and that artificial intelligence expert systems will be replacing highly skilled service jobs by 2005 and that artificial intelligence rather than the Internet would be the economic engine of the 21st Century. Although he saw financial transactions, travel arrangements and consumer purchasing being automated, he saw all of these happening with distributed data processing or some level of artificial intelligence using human intervention rather than the empowerment of the Internet. Pelton speaks of the 168 hour work week in the global electronic village

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## CHAPTERS' CORNER

# Chapter Activities Session 2006 – Revisited

by Dave Stein

The year 2006 saw a new format for the annual chapter activities sessions that are held during the annual WFS conferences – specifically, a participatory format designed to ensure session ownership among the chapters. A departure from lecture formats and unfocused discussion, “CAS2006” showcased three vibrant chapters and laid the groundwork for meaningful follow-on action.

Among other accomplishments, we identified several challenges that various chapters are facing. They are listed on the new **FUTUREtakes** Web page, [www.futuretakes.org](http://www.futuretakes.org). As a possible solution to two of these challenges, national level “umbrella” WFS organizations were proposed as an intermediate tier between the International WFS and local chapters within the respective country. It is envisioned that this can these umbrella organizations can assist with non-profit registration (recognizing that applicable tax laws vary among nations) and with pursuing corporate sponsorship and tax-deductible grants. In addition, they can possibly facilitate cross-border financial transactions between the International WFS and its members and chapters in other nations, especially when such transactions are impeded by exchange controls.

Similarly, Web-enabled “e-programs” were proposed as a way to serve geographically dispersed members, as when a single chapter serves a large region. If implemented, such e-programs might herald a “next-generation” type of chapter.

In addition, we identified two areas for possible inter-chapter cooperation: (1) joint chapter-classroom activities and student networking and (2) pair-wise partnering between chapters in affluent nations and chapters in nations that are less affluent.

Inspired by the success of CAS2006, **FUTUREtakes** has proposed a similar multi-stakeholder participatory format for the 2007

**Learning (Education) Session**, to be held in conjunction with World Future 2007 in Minneapolis.

To meet the challenges that we have identified, facilitate inter-chapter cooperation, and help every chapter “be everything that it can be,” it is essential

## Verónica Cruz Zamora, New Chapters' Corner Editor

It is our honor and privilege to announce the appointment of Verónica Cruz Zamora, WFS Mexico, to the post of **FUTUREtakes** Chapters' Corner Editor, beginning with our next regular issue.

Verónica shares our vision for continuing the inter-chapter dialog that we started prior to last year's chapter activities session (“CAS2006”), is an exceptionally gifted organizer, and wants to publish your thoughts on how chapters can work together and be successful

that we maintain our inter-chapter discussions. Group e-mail is the fastest way to communicate, but the “Chapters' Corner” column is normally available to more people than we generally reach via e-mail. Either way (or better yet, both ways), let's remain in contact!

individually.

The Chapters' Corner column is your forum for doing this. Let's work with Verónica so that the Chapters' Corner can help make every chapter a winner!



Zamora

Verónica at [valy\\_0802@yahoo.com](mailto:valy_0802@yahoo.com).

Effective immediately, send your Chapter' Corner column contributions to

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rather than use the term 24/7. He predicts human evolution as a result of artificial intelligence and of everyone being “plugged into a global electronic machine” but stops short of using the term “singularity.” He speaks of electronic terrorism. Could he have been thinking of virus proliferation and SPAM?

Other articles in the conference volume deal with the creation of colonies on other planets and their moons as a way of escaping the environmental problems of earth, problems of futurists relating to other professionals and the public, biotechnology as a way of saving the U.S. agricultural sector, the need for a manifesto for the coming information age, etc.

So, here we are in 2007. The Soviet Union does not exist but China and India have emerged as economic powers. The Internet has become a vital communications link and economic engine and globalization accel-

erator. However the US still has stagnant economic growth and has almost given up on resurrecting productivity centers of the past whose economic base was manufacturing. We still have the global environmental threats but recent events show that something akin to “public interest partnerships” may be forming to deal with this issue. Most Americans can't afford the housing they want and go into debt to buy less than their dream. The 1989 futurists did a good job of telling us where we were heading and suggesting possible, although somewhat utopian, solutions to the 21st Century problems. I look forward to reading the 2007 conference volume.

*Jay Herson is still a “relatively young” futurist. He is Managing Editor and a frequent contributor to **FUTUREtakes**. He is also Senior Associate at the Johns Hopkins Bloomberg School of Public Health, Baltimore, MD and at the Institute for Alternative Futures, Alexandria, VA.*

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## Throwaway

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3.4 pounds of product waste a day for each American man, woman, and child—twice as much as in 1960 and ten times as much as 100 years ago. It is time to revamp the system so that it no longer supports the throwaway habit.”<sup>1</sup>

The throwaway economy is on a collision course with the earth’s geological limits. Aside from running out of landfills near cities, the world is also fast running out of the cheap oil that is used to manufacture and transport throwaway products. Perhaps more fundamentally, there is not enough readily accessible lead, tin, copper, iron ore, or bauxite to sustain the throwaway economy beyond another two or three generations. Assuming an annual 2-percent growth in extraction, U.S. Geological Survey data on current economically recoverable reserves show the world has 18 years of reserves remaining for lead, 20 years for tin, 25 years for copper, 64 years for iron ore, and 69 years for bauxite.<sup>2</sup>

The cost of hauling garbage from cities is rising as nearby landfills fill up and the price of oil climbs. One of the first major cities to exhaust its locally available landfills was New York. When the Fresh Kills landfill, the local destination for New York’s garbage, was permanently closed in March 2001, the city found itself hauling garbage to landfill sites in New Jersey, Pennsylvania, and even Virginia—with some of the sites being 300 miles away.

Given the 12,000 tons of garbage produced each day in New York and assuming a load of 20 tons of garbage for each of the tractor-trailers used for the long-distance hauling, some 600 rigs are needed to move garbage from New York City daily. These tractor-trailers form a convoy nearly nine miles long—impeding traffic, polluting the air, and raising carbon emissions. This daily convoy led Deputy Mayor Joseph J. Lhota, who supervised the Fresh Kills shutdown, to observe that getting rid of the city’s trash is now “like a military-style operation on a daily basis.”

Fiscally strapped local communities in other states are willing to take New York’s garbage—if they are paid enough. Some see it as an economic bonanza. State governments, however, are saddled with increased road maintenance costs, traffic congestion, increased air pollution, noise, potential water pollution from landfill leakage, and complaints from nearby communities.

Virginia Governor Jim Gilmore wrote to Mayor Rudy Giuliani in 2001 complaining about the use of Virginia as a dumping ground. “I understand the problem New York faces,” he noted, “but the home state of Washington, Jefferson and Madison has no intention of becoming New York’s



Brown

dumping ground.”

Garbage travails are not limited to New York City. Toronto, Canada’s largest city, closed its last remaining landfill on December 31, 2002, and now ships all its 1.1-million-ton-per-year garbage to Wayne County, Michigan. Ironically, the state of New Jersey, the recipient of some of New York’s waste, is now itself shipping up to 1,000 tons of demolition debris 600 miles—also to Wayne County in Michigan.

The throwaway economy that has been evolving over the last half-century is an aberration, now itself headed for the junk heap of history. The challenge is to redesign the materials economy so that it is compatible with nature—specifically to replace the throwaway economy with a reduce-reuse-recycle economy. Perhaps the focus should be less on what to do with the garbage and more on how to avoid producing it in the first place.

### POINTS FOR THE CLASSROOM

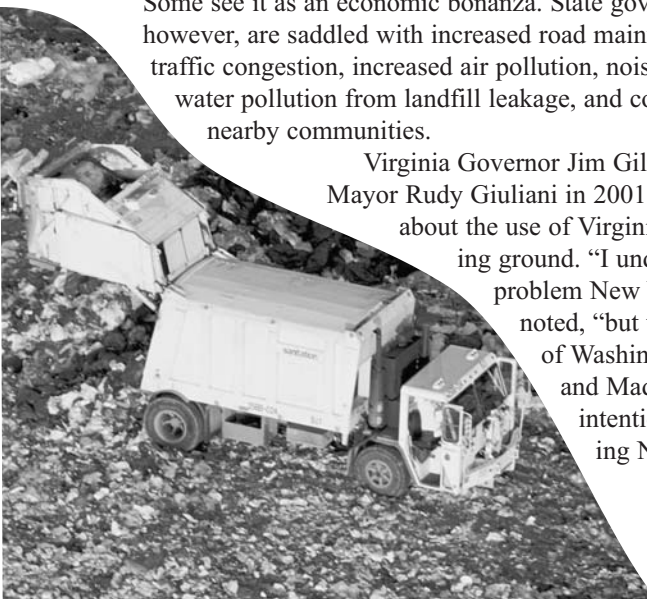
(send comments to [futuretakes@cs.com](mailto:futuretakes@cs.com)):

- As the throwaway economy becomes progressively less sustainable, how will that impact consumer habits and convenience, especially in a fast-paced society such as the US?
- Is a true steady-state economy possible, and if so, will it emerge? Why or why not?
- It has been argued that the throwaway mindset has migrated to the workplace and to the family, specifically, throw-away workers (layoffs) and throw-away spouses (divorce). If this is true, will a departure from the throwaway economy have similar social impacts? Conversely, will changes in social values and lifestyles impact what is manufactured?
- How can the environmental, climatic, and other long-range economic signals be captured in an economics utility function or otherwise, so that as Ernst von Weizsäcker put it, the market “tells the ecological truth”?
- What actions can people begin taking to move away from a throwaway economy?

**Lester R. Brown**, described as “one of the world’s most influential thinkers” by the *Washington Post*, is Founder and President of Earth Policy Institute <[www.earthpolicy.org](http://www.earthpolicy.org)>, a non-profit environmental research organization based in Washington, D.C., which he founded in May 2001. Some 30 years ago, he pioneered the concept of environmentally sustainable development. One of the world’s most widely published authors, his books have appeared in some 40 languages. His most recent book is entitled **Plan B 2.0: Rescuing a Planet Under Stress and a Civilization in Trouble**.

<sup>1</sup> Helen Spiegelman and Bill Sheehan, “Products, Waste, and the End of the Throwaway Society,” in Carolyn Raffensperger and Nancy Myers, eds., *The Networker: The Newsletter of the Science and Environmental Health Network*, electronic newsletter, vol. 10, no. 2 (May 2005).

<sup>2</sup> Calculated by Earth Policy Institute from United States Geological Survey, Mineral Commodity Summaries 2005 (Washington, DC: U.S. Government Printing Office, 2005).





# Meet a Member

## Alphan Manas

Regional Editor, **FUTUREtakes**  
and President, Turkish Chapter, WFS



Alphan Manas was born in 1962 in Izmir, Turkey. He graduated with a degree in Textile and Apparel Engineering from Aegean University in 1983 and received his Master's degree in Production Management from the State University of New York in 1987.

He worked as a Production Manager at the New York factory of Tenba—a camera bag and specialty handbag manufacturer. In 1987, he returned to Turkey as Country Manager of the Colonial Corporation, part of a Fortune 500 apparel giant, and a supplier to American department store chains such as Sears, K-Mart, JC Penney, and Wal-Mart. In 1988, he co-founded Exim, followed by Planet and Teknoser, then all gathered under the flagship of a Holding company Teknoloji Holding in 1998. In February 2006, he parted ways with his partner and established Brightwell Holdings BV in the Netherlands; under which are 7 companies extracted from Teknoloji Holding as well as new offices and establishments in the U.S. and the U.K. As a co-founder and Co-Chairman, he had been in charge of “Business and Market Development” activities in Teknoloji Holding for 18 years. His most successful venture is IDDAA, a licensed sports betting project in Turkey. He also acted as project leader from 2000, when this project was conceived, to November 2005, when Teknoloji Holding’s 20% stake sold Intralot at 400 Million USD market cap.

Alphan Manas led and participated in several important infrastructure projects in Turkey at the government level and assisted the organiza-

tions in question with the drafting of bills, communiqués and decrees. Such projects included the source Bar Coding of pharmaceuticals, the Electronic Highway Toll Collection System, the 1997 Census Project, the Automatic Meter Reading (AMR) system based on mechanical meters and last but not least: the roll out of “Sports Betting and Horse Racing” wagering via stationary agents, GSM, iTV, Internet and IVR platforms.

Alphan Manas is a self-taught futurist. He is a prolific inventor and industrial designer and now spends most of his time conceiving of and devising inventions on various scales, inventions that entail the use of innovative technology. Also a social engineer, his endeavors promote the betterment of society. His designs range from household items, safety and everyday products, and the redesign of existing products that have not been improved for decades. He evaluates trends as well as generations from baby boomers to Gen-Z closely whilst continuously developing ideas to incorporate tomorrow's technology into today's products to improve lifestyles and the environment.

In addition, he is an expert on various technologies involving renewable energy, transportation, housing technologies and other emerging technologies that can help ensure a great future. He works closely with state institutions, university laboratories, tech start-ups, etc., both in Turkey and the U.S., in support of projects for developing countries. He is a board

member at the Institute of Ecolonomics in the U.S., which is a non-profit organization that promotes economic sustainability of rural areas by local production of energy, food, housing, and other products.

As a member of the World Future Society, he chaired the Turkish chapter and later founded the Turkish Futurists Association. His other memberships include TUSIAD (Turkish Industrialists and Businessmen's Association), the Turkish Business and Sustainable Development Association (Founding Member), The American Turkish Council, and the TUBITAK MAM (Scientific and Technical Research Council/Laboratory of TURKEY Marmara Research Center) Advisory Council (Energy and Chemicals). He writes articles in a number of periodicals and newspapers: He began writing in 2005 for Forbes Turkey and is a Regional Editor for **FUTUREtakes** of the World Future Society, an international professional society based in the U.S.

In 2005, Alphan Manas was appointed Honorary Consul General of Cambodia in Istanbul.

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## Globalization

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demonstrates its limitations. Every “victory” contains the seeds of fear, mistrust and hostility. Societal tension underlies attempts at reconciliation, rendering them temporary at best. A more fundamental and sustainable approach to societal harmony is apparently needed.

One approach is to examine the underlying subjective issues of conflict, a common one being tension or stress. As R.K White argues in *Fearful Warriors*:

“Traditional approaches to peace...cannot be effective in the absence of concurrent measures to drastically reduce tension. High levels of tension or stress directly motivate violence aimed at removing perceived injustices, threats or blocks to progress...they may also indirectly breed misperceptions, fear, and dysfunctional cognitive and decision-making processes.”

Consider this on a personal level. Recall a circumstance between you and a spouse, coworker or business partner. Your stress may have distorted your perception of the situation and ability to make thoughtful, creative, harmonious decisions. Now multiply this stressful influence times a hundred or thousands, as is the case in many communities around the world.

If a sustainable approach to peace is possible, it must alleviate this tension in a way that feels personal to each individual, yet is not externally imposed. When this is accomplished, cognitive and decision-making processes naturally tend toward more harmonious outcomes.

Examining human consciousness as it relates to peaceful relations seems as relevant as any externally motivated means of resolving conflicts. In fact, as consciousness researcher, David Orme-Johnson points out, “The scientific exploration of consciousness is critical to our understanding of the natural world and for solving the recalcitrant problems of humankind, which are all ultimately problems of mind.”

Once we give consciousness and

its practical application equal footing with machines, progress and commerce, we have a chance at uniting three major developments that have resulted from advancing technology and globalization. They are: 1) collective mind over matter, 2) a human-based peace technology, and 3) massive global collaboration.

### As Mass Mind Moves, So Does Matter

Imagine going to Las Vegas and playing craps. Instead of everyone at the table hoping for a different roll of the dice, you all agree what number you want to see. Believe it or not, this might have a subtle influence on the probability of those intended numbers occurring. This ability to influence random events has been studied for over 75 years, according to Dean Radin, PhD, author of *Entangled Minds* and *The Conscious Universe*.

Now imagine having dozens of computers spread around the world whose job it is to roll electronic dice continuously, creating a steady stream of random events. Do you think that a group of people around the world could meditate on becoming more coherent as a group, calming themselves very deeply without falling asleep, and that human coherence could make those random dice-rolls not so random?

What would you say if it doesn't even require that much intention; that all it takes is an event that captures the collective attention, like the death of Princess Diana, a tsunami disaster broadcast on every TV station, or the tragedy of September 11, 2001? Dr. Roger Nelson, retired Princeton University professor, heads the Global Consciousness Project.

[noosphere.princeton.edu]. Since 1998 this project has been running a network of random event generators distributed around the world. When actual events of world interest happen, a change of the random numbers to non-random occurs, which cannot be explained through traditional physics. Over 200 events have been evaluated, from natural disasters to the death of celebrities to global med-

itations, and have shown that as humans become more coherent, it appears that matter does too, with odds against this phenomenon occurring by chance at over 1,000,000 to 1.

As extraordinary as these consciousness field effects are, something even more interesting happens when we study what occurs to *other humans* under special cases of intentional group coherence.

### A Human-Based Peace Technology

One of the most remarkable imports from the East isn't curry spice; it's a phenomenon referred to as “a fourth state of consciousness.”

The first three you are familiar with: 1) wakefulness, 2) dreaming while you sleep; and 3) deep sleep.

The fourth state, according to Robert M. Oates in *Permanent Peace*, seems to be a combination of two seemingly opposed human states: minimum physical-mental arousal and maximum awareness. The former is akin to deep sleep, where the body and nervous system are minimally aroused, with no sensory or mental activity. The latter is a rarified, gentle type of awareness that transcends normal wakefulness – a pure, self-referral type of awareness – awareness circling back to become aware of itself...awareness of awareness, so to speak.

While this fourth state of consciousness is uncommon, it is a natural human state. It has been studied extensively for its remarkably positive effects on human health and well-being. In this state, breath slows down, heart rate decelerates, skin conductance increases (the opposite of the Fight or Flight response), and brain functioning become more coherent from left to right and front to back, as indicated by the EEG).

The method used to experience this fourth state of consciousness is an inner practice called transcendental meditation (TM). The full complex of effects as described above does not seem to be achieved with most other forms of skilled relaxation or medita-

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**Globalization**

*continued from page 10*

tion. TM comes from the eastern Vedic tradition. It is the oldest continuous system of human knowledge, called the Perennial Philosophy. TM is not a religion, does not involve contemplation about religious or secular ideas, nor does it involve concentration, which is characteristic of some meditation and religious practices. It is a simple, inner practice that allows the active mind to settle to its silent self-referral state.

The reason TM is being highlighted here is because it has been the subject of most social studies, and has a well developed theory of consciousness and its individual and collective effects. These studies tested the hypothesis that societal stress underlies violence, aggression and conflict, which can be reduced by inducing into the community a fundamental calming and harmonizing influence.

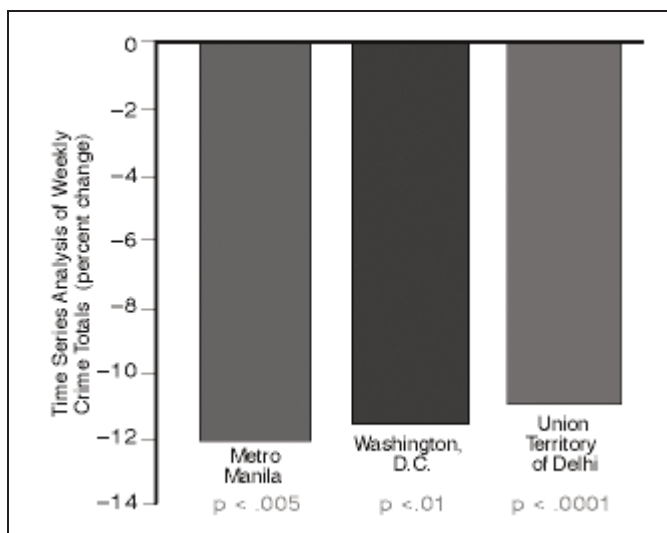
Remember the Global Consciousness Project where groups of people appear to influence a change of random numbers to non-random? Considering this, it's not too far fetched that humans can affect other humans to behave in a more coherent, harmonious way as well...by becoming more coherent and harmonious within themselves.

Since the late 1970s, studies of large peace-creating groups of TM practitioners have consistently shown a reduction of violent crime and terrorism. They come to a city, gather in large groups for a period of weeks or months, and a significant drop in crime is subsequently observed below pre-existing levels. These groups, numbering in the hundreds to thousands, seem to create a calming and harmonizing effect in the surrounding communities. What is particularly encouraging in these studies is that violent crime isn't the only aspect positively influenced; it appears that all members of a community, including

policy makers, social architects, police officers, husbands and wives, teachers, children, virtually every segment of a society, all seems to be influenced in a way to be more harmonious within themselves between each other and their environment. Think of what could be accomplished if citizens in these communities would form similar peace-creating groups and thus provide this effect on a continuous basis. The future of neighborhood crime prevention programs should include similar peace-creating group activities. These activities may include TM but studies currently underway may show other types of activities can be effective.

The table below summarizes three studies that demonstrated significantly reduced crime in the capital regions of the Philippines, the United States and India. A time series analysis showed that this drop was not expected based on prior causative factors, and could not be accounted for by weather, seasonal cycles or change in police coverage. Because two of the three groups were composed of Westerners visiting Asian cities, these studies also demonstrated that peace-creating groups apparently operate on a fundamental level that transcends political, cultural or ethnic differences.

**Decreased Crime in the Capital Regions of the Philippines, the United States, and India**



Source: [www.permanentpeace.org](http://www.permanentpeace.org) with permission.

The remarkable effects demonstrated by the 50+ well-controlled TM social studies is not outside the realm of your own personal experience, you may have just never considered it this way. Imagine going to a gathering of friends who respect you, desire your company, and are calm and enjoying themselves. This gathering would feel welcoming and you'd be more likely to have a relaxed, enjoyable time. You'd feel confident, creative and resourceful. You'd feel a harmony with your friends that would transcend inevitable differences. Contrast this with attending a court hearing with obvious interpersonal polarities, skilled adversaries and ill intentions. In the presence of this field of tension and conflict, you may feel uneasy, strained, mentally agitated, uncreative, perhaps even cognitively impaired, and not in the best decision-making mode. Both scenarios involve a localized consciousnesses field that you influence and that influences you...a very common human experience.

Mainstream science is just now recognizing this consciousness field. It's been there all along, though, harboring our hopes, frustrations, fears, joys, sorrows...and intentions. While a handful of very powerful people may be able to influence a nation for its betterment or detriment through political, economic or violent means, the mass of people connected through technology can now bring something much more rewarding to life. This brings up the final development.

**Massive Global Collaboration**

Massive collaboration in today's highly connected world is something dramatically different than we're used to. It is about deep changes in the structure of our society and economy that are touching virtually every aspect of human affairs.

As Dan Tapscott says in *Wikinomics, How Mass Collaboration Changes Everything*, "Billions of connected people can now active-

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## Globalization

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ly participate in innovation, wealth creation and social development in ways we once only dreamed of. And when these masses of people collaborate they collectively advance the arts, culture, science education, government and the economy in surprising ways...discovering the true dividends of collective capability and genius. These changes are ushering us toward a world where knowledge, power and productive capability will be more dispersed than at any time in our history—a world where value creation will be fast, fluid and persistently disruptive.”

The power to add immense value to humanity and disrupt the cycle of conflict, violence and societal disharmony has been demonstrated repeatedly by the two previously mentioned developments. Now, combined with the proliferation of massive collaboration technologies – made evident by the large scale successes of MySpace, YouTube, Second Life and Wikipedia – these two social endeavors can be scientifically explored to discover their ability to impact social harmony.

Imagine a massive global collaborative of peace-creating groups whose purpose is social harmony, comprised of members from every religion, meditation practice and indigenous group. They would come together locally and globally, learn how to apply the findings of prior social studies, and develop an open-source technology that validated the social harmonizing effects of their combined efforts.

One of the products of their collaboration would be a “social harmony index” reflective of the value in social capital gained by their efforts. They

would regularly monitor indicators of social harmony and coherence, like the level and severity of emergency calls, crime statistics, socially responsible investing, and other real-time data sources. They would then feed that composite index back to participating groups over mobile phones, podcasts, television, radio and the Internet.

*Imagine a massive global collaborative of peace-creating groups whose purpose is social harmony, comprised of members from every religion, meditation practice and indigenous group.*

This index would serve as a social coherence feedback signal that would help integrate all the diverse tendencies in society for a mutually enhancing common good. This will educate and empower ever-larger numbers of people to participate in the most effective peace-making program ever developed. One that puts the power of peace in the hands of those who benefit most: the individual. This would be ideal for the Millennium Project of the United Nations University and incorporated in their annual *State of the Future* publication.

When this is done, peace may well be within our reach, and science can help us get there.

**Joseph R. Giove** is founder and Executive Director of *CommonPassion.org*, a nonprofit, nonsectarian, educational and scientific consortium committed to uniting collective human intention and technology to promote social harmony:  
[www.CommonPassion.org](http://www.CommonPassion.org).

### POINTS FOR THE CLASSROOM

(send comments to [futuretakes@cs.com](mailto:futuretakes@cs.com)):

- In 2015, will win-win approaches to conflict resolution – between nations, political factions, socioeconomic groups, ethnic groups, etc. – be more prevalent than the “zero-sum” approach that is so pervasive today?
- There are several sources of dissatisfaction in the world, and various forecasts indicate that some will get worse. Some discontents result in interest-based conflict – for example, competition for resources (food, water, energy, etc.) and living space. Other stressors, especially in this era of rapid change, include deculturation, loss of one’s way of life, and loss of one’s sense of stability and identity. This, in turn, typically leads to over-identification with one’s “tribe” or ethnic group in a binary “us-them” sense that sows the seeds of value-based conflict – sometimes reinforced by a sense of past injustices and a perceived need for redress. Superimposed on this

*Imagine going to Las Vegas and playing craps. Instead of everyone at the table hoping for a different roll of the dice, you all agree what number you want to see.*

backdrop is the tendency of those who feel marginalized to find a sense of identity in street gangs, terrorist groups, etc. What promise does the human-based peace technology presented in this article hold for mitigating both interest-based and identity-based conflict?

- Does peace need to begin at the individual level? Why or why not?
- Some present-day societies and cultures value constant stimulation, diversion, and a fast pace of life – all now facilitated by IT as the world becomes more wired and people feel increasing pressures to stay “plugged in.” Taken to excess, this lifestyle is the very antithesis of “down time” and the regular practice of meditation and contemplation. At the same time, there is increasing dissatisfaction with the fast pace of life or so-called “rat race.” Considering all of these factors, will the human-based peace technology discussed in this article (or something similar) become more commonplace in Western cultures in 2015 – or will the fast pace of life prevail?

# Anticipatory Learning Strategies for Schools and Organizations

*Synopsis of the January 2006 dinner program presented by Marsha Rhea; summarized by Dave Stein*

Orienting learning toward the future can transform individuals, organizations and communities, but implementation can be challenging – one reason being that the need has far outpaced the readiness. The present structure is weighted toward the past, and in fact schools mimic the workplace, teaching students how to live in the world that was. How, then, does one inspire future-oriented education? How does one inspire learners to anticipate the world that they want and help them develop the knowledge and skills to create a preferred future? These were the issues explored by Marsha Rhea, a senior futurist at the Institute for Alternative Futures, in her interactive discussion with the US National Capital Chapter, during which she presented powerful new insights for meeting these challenges.

Rhea began the program with her four dimensions of a future-oriented framework for learning:

- Foresight, which helps make sense of a changing world by analyzing what we *need to know about alternative futures*. It includes such learning strategies as exploring images of the future, environmental scanning, forecasting, brainstorming wild cards, and creating scenarios.
- Identity, which takes into account *what we believe about the world and ourselves*. Identity includes metaphors, values, alternative cultures, multiple intelligences, learning style preferences, and emotional intelligence.
- Direction setting, which forges the learning of foresight and identity into decisions about *what we want to create in the future and how we will do it*. It includes appreciating prior learning, strategic issues, visioning, and goal-setting.
- Innovation, which explores the *solutions we can create together*. This is

the dimension that focuses on brainstorming, multidisciplinary learning, simulations, and experiencing context.

These points are also captured in Rhea's new book, *Anticipate the World You Want: Learning for Alternative Futures*, which explores anticipatory learning for primary and secondary education.

## FORESIGHT

Foresight focuses on theory of change, asking the question, "What makes change happen?" Examples include the technology theory, the evolutionary theory, and the social choice theory, noted Rhea. There is also the "push-pull-wait" model, in which "push" refers to trends and exterior forces, "pull" consists of values, visions, and social change, whereas "wait" accounts for resistance to change. Both the "pull" and the "wait" are cultural – the pull because it involves values, and the resistance because is partly a buying into the past. In her work with students, Rhea has found the theory of change to be an effective teaching tool.

As useful practices both for learners and for leaders, Rhea further emphasized the value of challenging the prevailing thinking – particularly the forecast that one wants to outsmart – and of questioning the assumptions on which the "official future" is based. In other words, scanning beyond the textbook version. To this end, Rhea pointed out that pre-teens love to challenge authority, in this case the textbook. At the same time, she acknowledged the need to pay attention to history – what has gone before and how it sets the conditions.

But one must also asked why something that was anticipated did not actually happen, continued Rhea. More generally, one must become more aware of the "white space" – that which he/she is not seeing. This is partly a matter of identifying unknown relationships.

## IDENTITY

Turning to identity, Rhea pointed out that what we learn and do is bounded by our ethics, values, identities, intelligence, and emotions. We've been shaped by our schools. On the other hand, this is an era of "identity crisis" brought on by globalization and deculturation and also by challenges to rules such as gender rules. Furthermore, we have multiple identities that we try on. As an example, Rhea pointed out that people, especially youth, use different screen names online.

But do we teach people to understand when this is going on? How will this new learning change the "hard wiring" of our minds (to borrow a computer metaphor)? Rhea suggested that it is useful to identify contradictions between the values that one has vs. the values that one claims to have.

Continuing, Rhea pointed out that there are multiple layers of intelligence. Learning and education occur via the visual, auditory, and kinesthetic modes. Then there are emotional intelligence, the Myers-Briggs personality descriptors, and religious or spiritual identity.

Contributing to the challenge of transcending one's identity is that parents sometimes assume that their children will have the same learning experiences that they have had. Furthermore, people are generally more proficient at advocacy than at inquiry. But what if one challenges his/her identity? Student exercises that Rhea has found useful are, "I want to be remembered as \_\_\_ (fill in the blank)" or "What is it like to be an invalid?" or "What is it like to assume your enemy's identity and mindset?" Acknowledging the possible comfort zone issues, Rhea proposed that the best way to challenge identities is to teach scenarios – "What if the world turns out differently? Who will you identify as then?"

## DIRECTION SETTING

People/groups are quick to blame their existing power structures when goals are not achieved, observed Rhea.

*See Learning, continued on page 14*

## Book Discussion

by David P. Baker and  
Gerald K. LeTendre  
Stanford University Press, 2005  
ISBN-0-8047-5021-1

Synopsis of the November 2006  
Futurist Book Group meeting,  
summarized by Lisa Roney and  
Carolyn Shettle

Baker and LeTendre bring an important international perspective on U.S. educational institutions and examine educational trends likely to affect education both globally and in the United States. Their discussion relied heavily on data from the Trends in International Mathematics and Science Study (TIMSS) which contains information from approximately 50 countries. The generalizability of their observations is limited somewhat by lack of TIMSS information for the poorest countries and its limitations to mathematics and science education. The group believes that some of the findings may not transfer to very poor countries or to fields other than mathematics and science.

# National Differences, Global Similarities: World Culture and the Future of Schooling

The authors emphasize the commonality in educational institutions among industrialized countries and make a number of interesting observations:

- mass schooling is on the rise;
- the effect of family on student achievement outweighs the effect of schools;
- shadow education systems (i.e., tutoring and other educational experiences designed to complement classroom experiences) are increasingly important;
- educational differences between males and females are declining;
- education is being pushed to ever younger kids; and
- the popularity of home schooling is rising.

The book suggests that current trends in these areas will continue. However, the group felt that the book failed to adequately address some factors likely to impact the future of education. These include the increased availability and use of technology in

the classroom and increased opportunities for international travel, influences of the school without walls concept, environmental/direct science experiences, and outward bound.

The group also pointed out that there may be unique aspects of educational institutions and environments of the countries studied that were not fully described in the book. For example, the United States (and to some degree Canada and Australia) have more ethnically diverse populations than most of the TIMSS countries.

One of the most intriguing topics explored in this book is the impact of inequality on education. The authors provide evidence that inequality in resource allocation to schools results in relatively low mathematics and science scores. They also find that school violence is associated with schools having lower overall achievement, greater variation in math scores, and more use of shadow education. They charge that U.S. programs aimed at poverty are

See **Discussion**, continued on page 15

## Learning

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For effective direction setting, leaders need to communicate the vision daily, not episodically, and they need to empower the followers and then get out of the way. Furthermore, they need to identify what “success” is. Strategic conversation is another effective tool – that is, identifying the strategic issues and where one can intervene. For example, while the environment may be the real strategic issue, “the environment” overwhelms people. Also useful is appreciative inquiry, that is, appreciating prior learning.



Rhea

## INNOVATION

It was here that Rhea drew a distinction between technical vs. social change and also between businesses

and schools. Businesses fail fast, learn quickly, and improve – whereas learning is not structured that way in the classroom. There is no “opportunity to fail faster,” she noted, adding that a possible way to provide such opportunities is earlier deadlines, earlier drafts, and repeat experiments. Rhea also emphasized that while something may have failed in the past, conditions may be different now.

As innovation tools, Rhea pointed out the value of brainstorming and of interdisciplinary learning. Leaders need to remove barriers to innovation, she continued, and school administrators need to provide resources and flexibility.

## POINTS FOR THE CLASSROOM

(send comments to  
futuretakes@cs.com):

- How do you reach people in a way for them to absorb the information – visual, auditory, kinesthetic?

- How will the demise of a “career for life” change one’s sense of identity and the concept of identity?

**Marsha Rhea** is a senior futurist with the Institute for Alternative Futures, a nonprofit futures think tank with a 28-year track record working with nonprofits and governments. Rhea also has worked with major corporations through IAF’s for-profit subsidiary, Alternative Futures Associates. IAF is based in Alexandria, VA. Rhea is the author of *Anticipate the World You Want: Learning for Alternative Futures*, published in 2005 by Rowman & Littlefield Education. The book advocates for schools to empower people to be creators of their preferred future. She was an integral part of IAF’s research for the American Society of Association Executives Foundation on the future of associations and collaborated in writing *Exploring the Future: Seven Strategic Conversations That Could Transform Your Association*.



**Discussion**

*continued from page 14*

weaker than in many other wealthy nations and "...the United States, economically dynamic and the most politically powerful nation in the world, has a poor record in establishing a fair and level educational playing field."

The authors also have an interesting view of the role of educational reform. They claim that reform doesn't change much but creates a sense of dynamism. They also say that "Educational reform cycles seem to occur most rapidly in the United States where there is a pending sense of educational doom" and point out that no organization like the National Science Foundation (NSF) or the American Association for the Advancement of Science (AAAS) ever finds all is well in education. Instead, they "look for solutions, find problems, and rally around implementation of reforms." (p.166) This emphasis on reform has resulted in rushed and unsophisticated analysis of test results causing nations to misinterpret results and make reforms in nonproductive ways

Group members were also surprised to find that the United States has approximately average rates of violence among 7th and 8th graders and that school violence is not related to crime rate.

Additional predictions:

- In the future one of the differences among nations will be their ability to train teachers to high standards,

which will create differences in the quality of instruction between the poor and wealthy nations

- Debate will continue on whether teachers should be specialists or generalists
- The overall trend will be toward more decentralization but with a continuing of a mix of centralized and decentralized elements; however, since the United States is currently at the extreme of the decentralized continuum, reforms such as "No Child Left Behind" may result in greater centralization.

**POINTS FOR THE CLASSROOM**

(send comments to [futuretakes@cs.com](mailto:futuretakes@cs.com)):

- *The Trends in International Mathematics and Science Study focused on mathematics and science education. By 2018, will the liberal arts be de-emphasized in favor of "utilitarian" education? Why or why not? Also, what new areas of learning will emerge?*
- *According to Baker and LeTendre, the popularity of home schooling is rising. Will home schooling be even more popular ten years from now? And, are there any long-term changes in family life as we now know it that will impact home schooling?*
- *What is the future of education for gifted students? Challenged students? Will education of the future be more individualized, helping each student build on his/her strengths? Or, will it be more monolithic, with fewer "opportunities to excel" and the resulting loser mindset for students who don't "make the grade"?*
- *Do you agree that the overall trend will be toward more decentralization, and if so, in which countries?*
- *As the reviewers suggest, how will IT, increased opportunities for international travel, and new approaches such as the school-without-walls concept, impact education in the next decade?*
- *What major differences will exist in education among various nations in 2018?*
- *Finally, will a new understanding of the brain lead to new modes of education beyond the lecture and class discussion approaches?*

**Joint WFS Chapter – Classroom Activities!**

**Students, Teachers, and Professors – Get Published!**

The "discussion points" appended to the articles and program synopses published in **FUTUREtakes** are excellent launch pads for articles, commentary, and joint WFS-classroom research projects. Designed to encourage original, interdisciplinary, futurist thinking in the classroom, these discussion points instill an awareness of the pervasive impacts that often result from social, policy, and technology developments, including unforeseen consequences.

Now circulated to various other professional societies in the greater Washington DC area and to other WFS chapters worldwide, **FUTUREtakes** ([futuretakes@cs.com](mailto:futuretakes@cs.com)) invites you to join with us to facilitate publication opportunities for forward-thinking students and faculty in your geographic area. Help us grow the next generation of futurists!

**Futurist History**

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**POINTS FOR THE CLASSROOM**

(send comments to [futuretakes@cs.com](mailto:futuretakes@cs.com)):

- *Are predictions from futurists generally more accurate in some areas of human endeavor (e.g., economics, the environment, technology, living and working patterns) than in others? If so, which ones?*
- *Which futurist methodologies are most effective in obtaining forecasts that are "on target"? What factors generally cause futurists' forecasts to be "off the mark"?*
- *In 2020, will futurists be more effective in relating to professionals and the general public than they are today? If so, will this be universal or only in certain parts of the world?*

**FUTUREtakes** is distributed electronically, free of charge, to World Future Society chapters worldwide, to interested individuals, and to selected think tanks, other professional societies, and educational institutions. In addition, it is available at [www.futuretakes.org](http://www.futuretakes.org). For further information, contact us at [futuretakes@cs.com](mailto:futuretakes@cs.com).

## You Are *Invited* to *Participate!* A Groundbreaking Study on Weak Signals

by

### The Finland Futures Research Centre

Here is an opportunity to participate in a pioneering study being conducted by Elina Hiltunen at the Finland Futures Research Centre! The study is groundbreaking in its efforts to find how futurists seek information about weak signals from various sources. Your participation is invited and encouraged. It does not take a long time to respond, and results may give you indeed new perspectives for your own future work.

Weak signals in this study mean today's earliest form of information, which can foreshadow the changes in the future. As time passes, it might come out that weak signals were the first signs or symptoms of a big change, even megatrends. However, weak signals are not always clues about big changes. They might simply be information about strange things that are happening now, and sometimes they are only rumours.

If you would like to participate, please respond to the Web survey immediately. The link to the Web questionnaire is:  
<http://www.webropol.com/P.aspx?id=135386&cid=22521723>

In gratitude for your participation, Elina will send you a copy of the study report on request when it is published in June 2007. To get the report, please e-mail her at: [elina.hiltunen@tse.fi](mailto:elina.hiltunen@tse.fi). She will also be pleased to answer any of your questions concerning the study or weak signals.

*"The understanding of weak signals has become a hot issue for anyone who claims to be professional futurist. Above all, for us as experts, the issue related to weak signals is how to develop methodologies that help us to reach relevant sources for phenomena that are not obvious but may have great impact for future."*

– Markku Wilenius, Professor for Futures Studies, Turku School of Economics, Finland Futures Research Centre

## FUTUREtakes Web Site

Back issues of FUTUREtakes are now available on the Web! We invite you to visit our new Web site, [www.futuretakes.org](http://www.futuretakes.org), which became operational in January 2007. There you will also find information about our other new initiatives for 2007.

Please be patient with us regarding the austerity of the Web site design. Our first priority has been content, and at our earliest opportunity, we add appropriate design features to enhance the site's visual appeal.

## Future

*continued from page 5*

- Haass states that the US has lost its credibility as an honest peace broker. In the larger context of worldwide perceptions of the US and other geostrategic factors, do you foresee a unipolar, bipolar, or multipolar world in 2020 – considering all instruments of national power (military, economic, and diplomatic) and the increasing role of non-state actors?
- Small militant minorities on either side of a longstanding and/or deep-rooted conflict can destroy trust and thwart peacekeeping and peacemaking processes, even without resorting to weapons of mass destruction (WMD). Who will have the advantage in 2020 – the peacekeeper/peacemaker forces or militant minorities?
- The tribal conflict in the Middle East predates the religions that trace their roots to the Middle East. With this in mind, do you see any possibility that all sides in present Middle East conflicts will tire of war and choose peace? Or is continued tribal warfare the wave of the future, especially considering that ethnicity may be one of the few surviving stable reference points and sources of identity?

*Arthur B. Shostak is Emeritus Professor of Sociology, Department of Culture and Communication, Drexel University. He can be reached by e-mail at [SHOSTAK@drexel.edu](mailto:SHOSTAK@drexel.edu). Readers are also invited to visit <http://www.futureshaping.com/shostak> and <http://www.cyberunions.net>.*

## TransVision2007

July 23-26, 2007

*Do you believe that emerging technology will give society the ability to solve the greatest challenges facing humanity? What's the biggest priority: longevity therapies, sustainable energy, clean water, a restored environment, or space development?*

These issues will be explored at TransVision2007, sponsored by the World Transhumanist Association. The theme is **Transhumanity Saving Humanity: Inner Space to Outer Space**, and TransVision 2007 will feature three full days of compelling dialogue with the greatest minds of today about creating the civilizations of tomorrow. TV07 brings extraordinary people from across the globe together with more than 30 distinguished speakers, entertainers and visionaries including: award-winning inventor, futurist, author Raymond Kurzweil; acclaimed longevity scientist, Aubrey de Grey; and Emmy award winning actor, William Shatner.

For further information, visit [www.transvision2007.com](http://www.transvision2007.com).