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BUILDING SHARED UNDERSTANDING

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The Art of Foresight: Preparing for a Changing World by the World Future Society

Foresight is the secret ingredient of success, because without foresight we cannot prepare for the future. Effective foresight has always been important in human life, but it is now much harder to come by, because our modern world is changing faster than ever before. Our technologies, jobs, institutions, even some of our treasured values and ways of thinking are all shifting radically, making it very difficult to plan ahead and prepare for future challenges and opportunities. Indeed, in our age of hyperchange, many people have no notion of what sort of world they should prepare for. They may decide, fatalistically, that they cannot know or do anything about their own futures.

Foresight, in contrast to fatalism, gives us increased power to shape our futures, even in the most turbulent of times. People who can think ahead will be prepared to take advantage of all the new opportunities that rapid social and technological progress are creating. Futurists have recognized that the future is continuous with the present, so we can learn a great deal about what may happen in the future by looking systematically at what is happening now. The key thing to watch is not *events* (sudden developments or one-day occurrences) but *trends* (long-term ongoing shifts).

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THE ART OF FORESIGHT: PREPARING FOR A CHANGING WORLD

BY THE WORLD FUTURE SOCIETY

Foresight is the secret ingredient of success, because without foresight we cannot prepare for the future. Effective foresight has always been important in human life, but it is now much harder to come by, because our modern world is changing faster than ever before. Our technologies, jobs, institutions, even some of our treasured values and ways of thinking are all shifting radically, making it very difficult to plan ahead and prepare for future challenges and opportunities. Indeed, in our age of hyperchange, many people have no notion of what sort of world they should prepare for. They may decide, fatalistically, that they cannot know or do anything about their own futures.

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Success Through Foresight

The relation of foresight to success is poorly understood. As a result, we often think people are successful because of luck, when in fact it was their foresight that made them “lucky.” Foresight enabled them to take advantage of opportunities and to avoid problems that trap other people.

Alan Hald, a young Arizona banker with a strong interest in the future, attended a World Future Society conference in the 1970s. There he met the editor of a new magazine for computer hobbyists. At the time, nobody but governments and big businesses could afford to build a computer, but Hald had the foresight

to see that the future of computers would be very different from the past, and many new business opportunities would open up. Hald went home in great excitement to talk to his partner about starting a business in computers. In the following years, Hald’s business (MicroAge) grew into America’s largest microcomputer distributor, serving dealers around the world.

Foresight, in contrast to fatalism, gives us increased power to shape our futures, even in the most turbulent of times.

Foresight is critical to success in all areas of our lives, including major life decisions. In contrast to Hald’s success, people who lack foresight are only too likely to find themselves unemployed when jobs are unexpectedly lost to new technologies, competition from overseas, or shifts in consumer tastes. Without foresight, we often have little idea of what to do next, so developing our foresight may be the best way to safeguard our current jobs and future employability.

Foresight may also save our lives. Here’s why: Scientists are identifying more and more ways for us to live longer, healthier, and happier lives, but we have to decide to follow their advice. People lacking foresight are only too likely to disregard the practices that would safeguard their future health and wellbeing. Millions of people are alive today because they paid attention when scientists confirmed the enormous damage that smoking cigarettes does to the human body.

Meanwhile, their neighbors and friends who continued to smoke have succumbed to lung cancer, heart disease, and strokes.

Education is another area where foresight is important. Students lacking foresight are more likely to neglect their studies because they see no connection between education and a successful future. But students with good foresight skills can recognize the importance of studying and can also select the courses most likely to help them meet their goals. Young people who do not learn to think ahead may find it difficult to plan for a successful marriage and family life. People whose foresight is weak are likely to have difficulty saving money for emergencies, down payments on homes, and retirement.

Foresight is particularly important for investments, and exceptionally good foresight can bring riches. Warren Buffett, one of the world’s most successful investors, won his wealth by being able to identify inexpensive companies that were likely to prosper in the future.

Foresight in Business and Government

People in business can use foresight to identify new products and services, as well as markets for those products and services. An increase in minority populations in a neighborhood would prompt a grocer with foresight to stock more foods linked to ethnic tastes. An art museum director with foresight might follow trends in computer graphics to make exhibits more appealing to younger visitors.

Foresight may reveal potential threats that we can prepare to deal with before they become crises. For instance, a corporate manager with

foresight might see an alarming rise in local housing prices that could affect the availability of skilled workers in the region. The public's changing values and priorities, as well as emerging technologies, demographic shifts, economic constraints (or opportunities), and environmental and resource concerns are all parts of the increasingly complex world system in which leaders must govern effectively.

People in government also need foresight to keep systems running smoothly, to plan budgets, and to prevent wars. Government leaders today must deal with a host of new problems emerging from rapid advances in technology. Technology-assessment expert Vary T. Coates notes that, "Technology-related issues today besiege Congress across the range of committee responsibilities—stem-cell research and human cloning, missile defense, cellular telephones, genetically engineered foods, the Internet, and much more—because technology has become a central part of modern life."

Even at the community level, foresight is critical: School officials, for example, need foresight to assess numbers of students to accommodate, numbers of teachers to hire, new educational technologies to deploy, and new skills for students (and their teachers) to develop over the coming years.

The Growth of Foresight Techniques

Many of the best-known techniques for foresight were developed by U.S. military planners, when the post-World War II atomic age made it critical to "think about the unthinkable" and prepare for it. Pioneering futurists at the RAND Corporation (the first think tank) began seriously considering what new technologies might emerge in the future and how these might affect U.S. security. These RAND futurists, along with others elsewhere, refined a variety of new ways for thinking about the future.

Futurists have recognized that the future is continuous with the present, so we can learn a great deal about what may happen in the future by looking systematically at what is happening now (see "Futuring: Profession

or Point of View?"). The key thing to watch is not events (sudden developments or one-day occurrences) but trends (long-term ongoing shifts in such things as population, land use, technology, and governmental systems).

Futurists also developed the use of scenarios as an extremely useful way to think about the future. A scenario is not a prediction purporting to state definitely what will happen in the future, but rather a plausible description of events that might occur in the future. Scenarios are fictional, but realistic anticipations of what may happen in the future. Using scenarios, we can think seriously about what we should do next. In some cases, we may want to prevent these potential future events from happening; in other instances, we may want to cause them to happen or even hurry them along.

Using these techniques and many others, futurists now can tell us many things that may happen in the future. Some are nearly certain to happen, such as the continuing expansion in the world's population. Other events are viewed as far less likely, but could be extremely important if they do occur, such as an asteroid colliding with the planet.

Ways to Anticipate the Future

We may not be aware of it, but we all develop, in the course of growing to adulthood, a variety of ways for thinking about the future. Most of us use these methods without being consciously aware of just what we are doing. Futurists anticipate, forecast, and assess future events by using a variety of rational, empirical, and scientific techniques. These methods are largely refinements of the common-sense techniques that people use in everyday life. But they are completely

FUTURING: PROFESSION OR POINT OF VIEW?

Futuring can be viewed as either a professional activity or a mind-set. Professional futurists are often consultants who must meet their clients' needs; they help draw the "maps" of the future and identify the obstacles (and opportunities) along the way.

But many "futurists"—in fact, most members of the World Future Society—are not professional futurists. Occupations and backgrounds are richly varied: students and deans, clerks and CEOs, architects and ambassadors, poets and planners, engineers and editors, musicians and marketers, farmers and fashion designers.

Futurists share a passion for ideas and a desire to look over the horizon to see what's going on in the world, what it could lead to, and what they can do about it. As former NATO ambassador Harlan Cleveland once put it, futurism should be everyone's "second profession." It is difficult to imagine anyone in any profession who would not benefit from mastering the tools of futuring.

different from supernatural fortune-telling practices such as crystal-ball gazing and astrology.

Here are a few of the most common techniques used in futuring. For more-detailed discussions of these techniques, see *Futuring: The Exploration of the Future* (World Future Society, 2004).

- **Scanning:** An ongoing effort to identify significant changes in the world beyond the organization or group doing the scanning. Typically, scanning is based on a systematic survey of current newspapers, magazines, Web sites, and other media for indications of changes likely to have future importance. Scanning focuses mainly on trends—changes that occur through time—rather than events—changes that occur very quickly and generally are much less significant for understanding the future.

- **Trend Analysis:** The examination of a trend to identify its nature, causes, speed of development, and potential impacts. Careful analysis may be needed because a trend can have many different impacts on different aspects of human life, and many of these impacts may not be apparent at first. Longer life spans, for example, increase the number of people for whom resources must be provided, but also increase the number of people who can contribute to the economy and society through paid and unpaid labor (see "Trend

Background

The world is experiencing an increase in elderly people. To clarify the implications of this trend, the staff of the World Future Society has identified a number of the causes of the trend and possible effects that the trend will have. This sample trend analysis is organized according to the six-sector “DEGEST” approach used by many business analysts and futurists and by *The Futurist* magazine’s World Trends & Forecasts section.

Demography

Causes: Women bear fewer children, allowing more resources for those they do have. Higher levels of education lead to better self-care and use of medical services.

Effects: Declining percentage of children in population. Fewer elderly will have working family members to help them with their disabilities and living problems. Increase in percentage of disabled in the population. Elderly may face backlash from younger people forced to pay for their upkeep. Elderly may break up into new categories—octogenarians, nonagenarians, centenarians, and super-old (over 110).

Economics

Causes: Rising living standards—more abundant food, shelter, public-health measures, etc.

Effects: More years in retirement. Fewer resources may be available for children and working adults due to the increase in the nonworking population. Businesses may need to come up with more incentives to keep older workers on the payrolls longer.

Environment

Causes: Careful treatment of sewage and other sanitary measures. Protection of

soil, water, and other resources. Reduction of air pollution.

Effects: Need for more resources of almost every kind to meet needs of swelling elderly population. Special pressures on areas favored by elderly—e.g., Florida, Arizona.

Government

Causes: Social Security ensures basic support for needy; tax advantaged retirement programs also help elderly meet their needs. Government funding of medical research allows steady flow of new medical knowledge and treatments. Laws protect people against physical abuse or injury from employers, environment, criminals, etc.

Effects: Increasing burden on Social Security and government programs to assist elderly and disabled. Elderly grow as political constituency demanding benefits. People may agitate against laws requiring that they spend down their individual retirement accounts. Government finances strain under burden of supporting retirees paying few taxes. As less money is available for meeting other national priorities, policies might become increasingly drastic, such as completely privatizing Social Security.

Society

Causes: Communications media and educational system influence people to safeguard their health.

Effects: Families have more elderly to care for. Parents’ resources may be diverted from their children to aging relatives. Elderly may become increasingly prominent in TV, other media. More products, programs, and institutions will be designed specifically for the elderly.

Technology

Causes: New drugs and medical devices preserve lives. Communications and transportation improvements make resources more available.

Effects: Elderly will push innovation by providing a growing market for drugs and technologies to overcome their disabilities. Techno-furnishings—high-tech chairs, beds, tables, sinks, toilets, etc.—may become popular as elderly seek solutions to their living problems. If researchers gain understanding of senescence (aging process), a means might be found to extend human lives for centuries.

Implications

You don’t expect to live to 100? Neither did most centenarians, but it happened. If you live to be 90 or 100, will you outlive your retirement savings? Will you postpone retirement, or even experience it at all?

Governments in many developed countries are seeking ways to keep aging populations from becoming a drain on future national resources. For example, Japan, facing the most severe aging trend, has enacted substantial benefit cuts to its national pension system, which will require some workers to work to later ages. There is likely to be a growing market for services used by the elderly—medical, home care, etc. Products designed for disabled elderly people—drugs, prosthetics, etc.—should be in growing demand. These trends may suggest career and investment opportunities. Should you think about targeting the elderly as prospects for your products or services?

Analysis: The Increase of the Elderly in the Population”).

• **Trend Monitoring:** Trends viewed as particularly important in a specific community, industry, or sector may be carefully monitored—watched and reported regularly to key decision makers. For example, a rapidly rising unemployment rate or the appearance of a deadly new disease may have significant impacts on many different organizations and communities. On the other hand, fashion trends may be of keen interest to such people as

clothing manufacturers or fashion-forward consumers (see “Top 10 Reasons to Watch Trends” on p. 5).

• **Trend Projection:** When numerical data are available, a trend can be plotted on graph paper to show changes through time. The futurist can then extend the trend line or “project” it into the future on the basis of the recent rate of change. Such a projection shows where the trend should be at some point in the future assuming there is no shift in *the rate of change*. Example: A population

with a steady 2% rate of annual growth will double in about 35 years.

• **Scenario Development and Analysis:** We all explore future possibilities through our imagination. For instance, we try to imagine what would happen if we accepted a job at a certain company: What good things—and bad things—might happen to us as a result of taking the job? Scenarios are attempts to imagine future possibilities on the basis of what we know (or think we know). Scenarios are useful in helping us to

understand what might happen as a result of a decision we may make.

The future development of a trend, a strategy, or a wild-card event may be described in story or outline form. Typically, a scenario seeks to show one plausible way that the future might unfold. Scenarios are particularly useful in futuring because of the general uncertainty of the future. Typically, several scenarios will be developed so that decision makers are aware that future events may invalidate whatever scenario they deem most likely and use for planning purposes.

• **Consulting Others (Polling):** Since “two heads are better than one,” we may ask other people—often experts—for their opinions about the future. Other people can also advise us on whether we are likely to enjoy a trip to a certain city, for example. Business executives and government leaders constantly use consultation as a means of understanding the possibilities of the future and making better decisions. Data may be collected through face-to-face conversation, telephone interviews, and questionnaires sent by electronic or ordinary mail. Delphi polling, popular among futurists, uses a carefully structured procedure to generate more-accurate forecasts.

• **Models:** Events that occur in the real world can be imitated in ways that help us to understand them better. A model of a building can help people to understand what a future building may look like. A map is a two-dimensional model that enables us to tell which streets we will come to if we go in a certain direction.

• **Simulations or Gaming:** A model is a static representation of something, but it has a dynamic twin—the simulation. Generals and admirals simulate battles when they move their model ships and aircraft about, either on large maps or during “war games” that involve real troops, materiel, and even live ammunition. In war games, real soldiers may become actors in a mock battle, which helps them to understand what actual combat is like and helps generals to test out alternative strategies and tactics they may

World Future Society members recently explained why they study trends:

1. **To get investment ideas and save money.** A group of “angel investors” reports finding new ideas by studying trends and reading World Future Society publications: “You have saved us money!”
2. **To get early warnings.** Scanning the environment for emerging opportunities and crises is like looking both ways for traffic before crossing a busy road. It just makes good sense.
3. **To get confidence.** A solid foundation of awareness about trends can give you the confidence to take wise risks.
4. **To get an edge on the competition.** Seeing what’s coming before others do can give you lead time to establish a foothold in a new market.
5. **To get at the heart of a trend.** Analyzing the details within a trend can help separate truly significant developments from rapidly appearing and disappearing fads.
6. **To get goals in balance.** Thinking about the future is an antidote to a “profit now, worry later” mentality that could lead to trouble in the long term.
7. **To get informed on forces affecting your field.** Health-care planners, for instance, need to know what’s going on in biotech and medicine, values and public policy, labor supply and population aging.
8. **To get informed on forces in many fields.** Educators, for instance, may follow trends in the economy and the workforce to know how best to guide their students.
9. **To get a glimpse of emerging futures.** A trend is a glance at potential futures; we can then take actions to turn those trends into opportunities.
10. **To get yourself and others ready for the future.** Many futurists serve as consultants or counselors; they must keep abreast of trends not only for their own sake but also to help their clients.

later use. The game *Monopoly* simulates the real estate market. Games can also be played with real people playing various roles: In the game *Sim-City*, one person might be the mayor while others play the roles of urban planner, transportation manager, landlord, city council, and so on.

• **Computer Simulations:** Complex systems such as the U.S. economy can be modeled by means of mathematical equations, which can then be fed into a computer. Then data can be entered to express the situation in the economy at the present moment. After that, policy makers can ask various “What if” questions, such as “What if we increase the income tax rate by 20%?” This policy change probably will have numerous results, many of which might never have been anticipated, due to the complex interaction of the many variables. The computer might show, for instance, that a proposed increase in the income tax would reduce automobile sales by 30% and cut the GNP by 10%.

• **Historical Analysis:** Futurists may study historical events in order to anticipate the outcome of current developments. Often a current situation can be compared to one or more situations in history that seem to be similar. For example, the U.S. invasion of Iraq in 2003 was compared by some commentators to the Vietnam War, with the implication that the Iraq War would also prove disastrous. Many government leaders have relied heavily on what they learned from history to guide them in making key decisions.

• **Brainstorming:** The generation of new ideas by means of a small group assembled to think creatively about a topic, such as a problem to be solved, an opportunity to capture, or a direction to take an organization. Group members are encouraged to build on each other’s ideas and withhold criticism. Brainstorming is useful in identifying possibilities, opportunities, and risks. Other idea-generating or problem-solving methods are also common, such as idea mapping,

impact analysis, and the systematic identification of all possible variables. Professional futurists may use brainstorming with their clients to help stretch their minds beyond the present and to promote continuous innovation and long-term strategizing.

• **Visioning:** Since futuring is about more than predicting, many futurists engage in the systematic creation of visions of a desirable future for an organization or an individual. Typically, the futurist will start with a review of past events and the current situation, move on to envision desirable futures, and then identify specific ways to move toward the desired future. A visioning procedure often prepares the way for more-formal goal setting and planning. ■

The World Future Society (info@wfs.org) is an association of people interested in how social and technological developments are shaping the future. The Society was founded in 1966 and is chartered as a nonprofit educational and scientific organization in Washington, D.C. The Society strives to serve as a neutral clearinghouse for ideas about the future, which include forecasts, recommendations, and alternative scenarios. These ideas help people to anticipate what may happen in the next five, 10, or more years ahead. When people can visualize a better future, then they can begin to create it.

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Resources from the World Future Society

Books

- *Futuring: The Exploration of the Future* by Edward Cornish (WFS, 2004)
- *Thinking Creatively in Turbulent Times*, edited by Howard F. Didsbury Jr. (WFS, 2004)
- *Foresight, Innovation, and Strategy: Toward a Wiser Future*, edited by *Futurist* managing editor Cynthia G. Wagner (WFS, 2005)

Reports

- “Outlook”: The World Future Society’s annual roundup of thought-provoking forecasts covers trends in business, education, technology, values, world affairs, and much more.

Among recent forecasts: Genetically modified crops may surpass natural crops in acreage planted by 2020. Two-thirds of the world’s population will be chronically short of water by 2050. Earthquakes will become deadlier in the future since they will have growing numbers of heavily populated megacities to target. And polar bears could become extinct in the next 100 years as global warming melts their Arctic hunting grounds.

- “53 Trends Now Shaping the Future” by Marvin J. Cetron and Owen Davies (WFS, 2005). The world’s population will double within the next four decades. Important medical advances will continue to appear almost daily. The global economy is growing more integrated. Future seniors will be healthier and wealthier. And water shortages will plague much of the world. These are among the 50 key trends that will change our world over the next two decades, according to veteran forecaster Marvin J. Cetron and science writer Owen Davies.

- “Future Careers: The High-Potential Jobs of Tomorrow.” What types of jobs will there be in the future, and how will we prepare ourselves for them? *The Futurist* magazine asked workforce trend analysts to share their insights, speculations, and recommendations for succeeding in the workplace of tomorrow. This special report comprises three articles originally published in the November-December 2005 issue of the magazine:

- ★ “Hyperjobs: The New Higher-Level Work and How to Grow Into It” by Richard W. Samson;

- ★ “Working in the Future: How Today’s Trends Are Shaping Tomorrow’s Jobs” by John A. Challenger; and

- ★ “Career Planning for the 21st Century” by Joyce Gioia and Roger Herman.

Periodicals

- *The Futurist: A Magazine of Forecasts, Trends, and Ideas about the Future*. This

fully illustrated magazine presents the ideas of scientists, government officials, educators, and others concerning what may happen in the years ahead. Published continuously since 1967, *The Futurist* is the largest and best-known futurist publication in the world.

- *Futures Research Quarterly* publishes scholarly or technical articles dealing with futures research. The journal is refereed by an editorial board consisting of leading future-oriented scholars.

- *Future Survey*: A unique monthly newsletter summarizing and commenting on 50 of the most significant current books, reports, and articles dealing with the future. This useful publication makes it easy to obtain a quick idea of what current thinking is in many areas of policy, from defense to family planning, from computers to the environment.

- *Futurist Update: News and Previews from the World Future Society*, a monthly e-mailed newsletter featuring concise reports on trends and ideas about the future, as well as brief book reviews, news from the Society, and links to useful Web resources.

Courses

The World Future Society’s annual meetings typically include many sessions of use to participants wishing to develop their futuring skills. In addition, more-advanced courses before and after the conferences cover such topics as:

- Systems thinking
- Technology forecasting
- Futurizing an organization
- Thinking like a futurist

YOUR THOUGHTS

Please send your comments about any of the articles in *THE SYSTEMS THINKER* to editorial@pegasus.com. We will publish selected letters in a future issue. Your input is valuable!

Leading Beyond the Horizon: Strategies for Bringing Tomorrow into Today's Choices

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Building on last year's theme of interdependence, we are set to explore how a better appreciation for the long-term impact and unintended consequences of our actions can be a powerful tool for managing our current challenges effectively. We will be guided by some outstanding speakers who bring a bold future orientation to the complexities of workplace, classroom, and community life:

Peter Senge is an acclaimed author and founding chair of SoL, Society for Organizational Learning. Peter brought universal attention to the field of organizational learning with his landmark book, *The Fifth Discipline*. A long awaited second edition will be published this year. He is back for his 16th Pegasus Conference.



Eamonn Kelly is the visionary author of *Powerful Times: Rising to the Challenge of Our Uncertain World*, and CEO of Global Business Network (GBN). He is central to GBN's leadership role in the evolution and application of scenario thinking and strategic conversation to help organizations change and innovate in fundamental ways.



Dawna Markova is a renowned educator, researcher, organizational consultant, and writer whose new book, *The SMART Parenting Revolution*, spells out how parents and teachers can identify and build on children's strengths. Her focus on our most precious resource will be of value to all of us who are interested in the classroom and workforce of the future.



Roger Saillant is president and CEO of Plug Power, an innovative fuel cell manufacturer that is changing the way energy is harnessed, distributed, and used. With equal measures of vision, humility, and drive, Roger models a tireless leadership style grounded in the knowledge that the work we undertake today will never be completed in our lifetimes.



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—Gerard Harkin, Project Manager, Philips Lighting

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CONFLUENCE OF PROCESS AND TECHNOLOGY BRINGS TWO COMPANIES CLOSER TOGETHER

BY BILL BANCROFT

This is the tale of a powerful, synergistic confluence of process and technology at a three-day strategic conversation last December that moved two large companies closer together. When planning for the event began in the late spring of 2005, no one could predict how it would turn out and whether the gaps between the two partners could be closed. The handful of people who designed and ultimately led the 70-participant meeting sensed both peril and opportunity—peril because the relationship had not been maturing as expected, and opportunity because the conversation offered a great venue for reaching senior leaders and moving the process forward.

The planning team, comprised of five internal stakeholders from both companies, realized that in order to transcend the barriers that existed between the two organizations, participants had to come together in conversation. Working with Laurie Durnell from the Grove Consultants International, Lenny Lind from Covision, and me from Conbrio, team members chose a bold design that combined graphic facilitation, computer-assisted fast-feedback technology, World Café principles, and Storymapping™ in ways that created a whole much larger than the parts. This combination of tools, the planning team reasoned, would prompt breakthrough conversation and ultimately a commitment to invest time and resources in resolving key issues.

That's exactly what happened. "It turned out the synergy of the design elements coming together created a unique situation beyond what we or anybody else expected," said Lenny. "The amount of work accomplished

was enormous." By the end of the conference, participants mapped out specific action plans in five categories. What follows is what Laurie, Lenny, and I saw and heard, the discoveries we made, and the questions we're still living with.

At a Snail's Pace

First, some background. For the two companies (they want to remain anonymous), the walk toward convergence began five years ago, when both sought to solve the problem of providing superior service to the world's largest companies in the U.S., Europe, and Asia. The companies are in an industry where it's difficult to grow organically. At the same time, neither wanted an outright merger with the other. Their solution was to strike a partnership. Two years ago, they decided to strengthen that partnership and to both market and serve clients as if they were one organization.

Since making the agreement, implementation moved slowly—so slowly that frustration boiled up in both companies. Negotiations on branding and a short list of other items necessary for a successful joint venture slowed to a snail's pace. There was talk, some of which leaked to outsiders in Europe, that one company would spurn the other for a better match. It became clear that the December meeting would be vital for moving the partnership forward.

I began my work with the two companies in the spring of 2005, in time to participate in the May semi-annual meeting. The meetings were started three years earlier to bring together large account managers and leaders from both companies across the globe to build relationships so

they could better team to seek new and serve existing customers. More than a hundred people participated in each of these events.

The May conference was a dud. A meet-and-greet affair, it was long on long-winded speeches and short on participation by attendees. A barely understandable economist held forth on the state of the world. An interminable panel discussion tried and failed to shed light on customer needs. A tour of locations around the city offered little insight into markets. One guest sitting next to me whispered, "This is a lot to go through for a free drink." A U.S. participant was so disgusted that he bailed 36 hours after arriving and flew home.

A Fresh Start

The client planning team vowed then and there that the December meeting would be more focused and engaging. In July, when the five members gathered in San Francisco with the consulting team, they began to make good on that vow. They decided on a real give-and-take meeting, where podium time for talking heads would be at a minimum, computers would capture and share participants' thinking, and graphics would play an important part in showing the whole picture. The team would hand-pick participants, keeping them to senior leadership and those who could actually make things happen—fewer than 100 were to be invited.

The meeting design drew on our consulting team's collective experiences. Laurie and the Grove have a decades-long history of working with groups using visuals and visual language, including graphic facilitation. She says, "Visuals, graphics help draw

people out, communicate ideas, and organize information.” Since 1992, Lenny has used computers in large group meetings to speed feedback among participants. The technology he has developed, called Council, allows people to enter ideas or viewpoints into computers and then instantly displays them to everyone in the room. And having used the World Café process several times, I knew the seven café principles—clarify the context, create a hospitable environment, explore questions that matter, encourage everyone’s contribution, connect diverse perspectives, listen together for insights and deeper questions and harvest and share collective discoveries—would work well in this context.

All three of us agreed that any one methodology, one process, one tool—graphics alone, for example—wouldn’t be quite enough because, in Lenny’s words, “It would leave this other thing, like need for information or outlet for planning, that wouldn’t be addressed.” Together, however, Lenny’s technology and Laurie’s graphics combined with our collective sensitivity to group dynamics and our ability to blend, orchestrate, and facilitate elements would allow us to cover all the key areas of presentation of issues, discussion, and action planning.

Once we had established the tools we thought would be effective, the next step was to ask, What exactly will the people at the meeting talk about? What issues needed to surface? Where was the line they could not cross? What could this December conversation accomplish? In our July meeting, Laurie helped the client planning team untangle these questions. She drew simple star people with thought bubbles coming from their heads, one for each stakeholder, seven in all, with outcomes in each of the bubbles. Leaders, for example, needed to better understand the business case for the two companies moving closer together, while company reps in Europe and Asia needed to learn what American clients expect.

Now that they could see the outcomes, the planning team was able to go forward to rough-out the hour-by-hour first draft of a three-day agenda. They decided to use a custom-drawn “infographic” to visually portray the results of a client survey they would present to spur the first day’s discussion. And they agreed that since all the outcomes couldn’t be fully realized in one meeting, they would focus the conversation on making the case for change. Subsequent meetings would delve more deeply into how they would imple-

ment the agreed-upon changes.

Drafting a minute-by-minute agenda was the next big task. This process guided the subsequent rounds of discussions with the planning committee. Like a script used by a stage manager to call a Broadway musical, the final agenda—20 pages long—contained directions for times, speakers, room set-ups, props, and other notes. Lenny, Laurie, and I used the agenda to work out how we would blend the details of the technology, the graphics, the World Café, and other elements. It also included a mock competition designed to show off the companies’ differences from its competitors and a panel of account supervisors who would illuminate customer service issues. “The planning was 40 to 50 percent of the intervention,” Lenny recalled. “The strong upfront process allowed us to design the session step-by-step so that it achieved all of the planning team’s goals while deeply engaging participants in creating a new future for the organizations.”

After the usual opening segments, results of a customer survey would be the main event of the first day. We would use the infographic to focus the presentation and then shift to World Café conversations. Lenny’s computers would capture reactions, quickly feeding them back so that participants, and especially key leaders, could see the collective thinking that emerged in the room. This back-and-forth between presentation and feedback was the structure that allowed creative problem-solving to emerge over the course of the meeting. The next day, we would start more café dialogues then move to a panel discussion, the mock competition, and more café conversations focused on action. Action planning in breakout groups would end the second day. The same groups would continue their action planning the morning of the third day. The conversation would wrap up at noon.

The planning team took those first minute-by-minute drafts and, in a series of meetings and conference calls with us during the fall, made them their own. They wrote, rewrote,

COMPUTERS AND CONVERSATION



Participants sat three to a table. This set-up facilitated both the Café discussions and teams’ use of computers to input responses. The infographic, which was positioned along a wall, provided a context for the process.

and wrote again the café questions. They changed and changed again the infographic. They flipped and re-flipped agenda activities. They ordered more implementation planning. They let more presentation time creep in, then, reluctantly, pulled it out on our recommendation. They settled on the final draft just days before the event.

The Main Event

The conversation opened just past noon in a ballroom at the Four Seasons Hotel in San Francisco. Participants entered to find the room set up with small, three-foot-diameter round tables, three chairs per table. Lenny put a computer at each table on top of a large sheet of paper that participants could use to take notes. We placed three dots—one red, one blue, one green—on the paper. Participants had one of the three colored dots on their name tags. In changing from table to table during café rounds, they could sit only at places where the dots on the table matched the dots on their name tags. The dots were meant to mix participants from different parts of the globe and different ranks in the organization (see “Computers

and Conversation” on p. 8).

Lenny, Laurie, and I went round and round on table size. The ideal number of people per computer is three. Lenny had been used to seating six people per table with two computers, partly because of wiring issues. Café discussions are best when four people sit at a small table because all can easily participate in the conversation. My fear was that larger tables would stifle discussion. I sought out Juanita Brown, co-creator of the World Café, who settled the issue when she advised us that three people per table would work much better than six.

As part of the first hour of the conversation, Lenny introduced his Council technology with three ice-breaker questions. This process familiarized participants with the technology. Everyone could see all the answers on their screens, displayed without attribution. The anonymity continued throughout and allowed for an open and honest exchange.

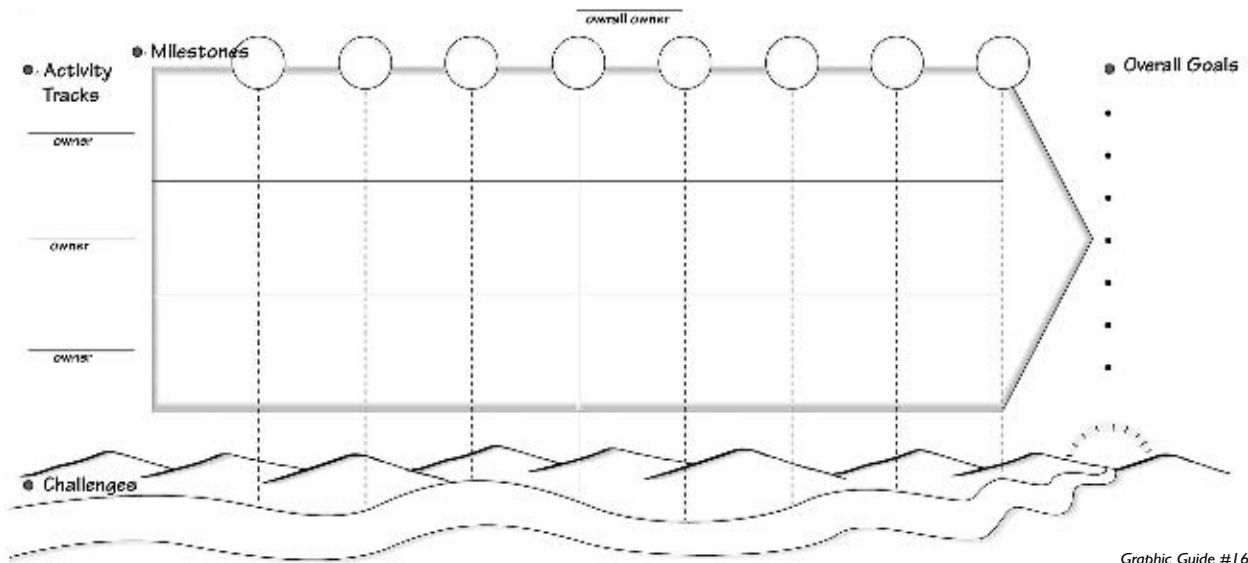
Laurie explained the 14-foot-long infographic, how it was put together to tell the story of worldwide trends, what customer needs resulted from those trends as reported

in the customer survey, the companies’ combined response to those needs, and the gaps between needs and responses. Then leaders began their presentation, using the infographic to which the group had just been oriented.

The first café round came after the first half of the presentation. It was a two-question round with participants entering their responses into their computers by table as they neared the 15-minute limit for conversation. Another round came after the second part of the presentation, this time with three questions. The final question was “What’s important for you as a group to explore further and understand?” At the end of each round, four participants, whom we dubbed the “Theme Team,” sorted through the answers, distilling them into themes, key questions, and comments.

The next morning started with the “Deep Dive Café.” Participants tackled three more questions, designed to support disclosure of the deeper issues, rotating to new seats after each question. The questions were straight-forward: “What’s taking shape? What are the unsaid issues around these themes? What’s the most

GRAPHIC ROADMAP TEMPLATE



Designed by the Grove, the Graphic Roadmap is a large-format worksheet of actions and target dates for deliverables on a project or an organization change process. A signature element is the identification of “milestones.” These are the key dates for events and deliverables that everyone will work to achieve.

important insight from our discussions so far?” Table groups entered answers to the last question into their computers.

A Pivotal Moment

It was during the Deep Dive Café that one of the most senior leaders became anxious and nearly cancelled the rest of the event because the discussion strayed into areas of overall strategy. The client planning team pushed back, pointing out the concerns voiced in conversations at the tables and through the computer were overwhelmingly similar and reflected what people were really thinking. The leader allowed the meeting to continue. “The planning team’s work ahead of time combined with the theme team’s work during the conversations gave the team’s members complete confidence in addressing this leadership challenge,” said Laurie. “They understood how things flowed, and when things got rocky over the issues in the room, it allowed them to remain calm, convince the leader to continue, and then successfully complete the agenda.”

In what was seen as the pivotal moment of the three days, at the end of the Deep Dive Café, senior leaders from both companies stood up together to say they understood the frustration and would do what was needed to quickly pull the two companies closer together. Said one participant: “We pushed it as far as we could go, right to the edge.” He and others had accomplished what they had been trying to do for months, which was to get their message across to senior management.

Now past the pivotal point, the attention turned to learning more about the gaps between customer needs and service capability. Four representatives who led global customer service teams told of their triumphs and frustrations. Participants both posed questions and made comments through the computer. Following lunch, participants broke into three groups to simulate a sales pitch. One of the three played the role of competitor and soundly beat the other two because, as one integrated global

company, it had more and better services to offer the prospective client and in a way that better met the client’s needs. Through the computer, participants identified gaps in each team’s service offerings.

Each of the processes works well alone, but in combination, the strengths were maximized and the weaknesses minimized.

Participants went next into the Action Café. Again rotating between questions and entering answers into the computer, participants chose the three most critical gaps to work on for the rest of the conference. And they suggested specific areas that might be improved—branding, for example, and global project tracking. Drawing from the responses, participants broke into nine different groups to plan how to close the gaps over the next six to 18 months. They worked on the specifics through the end of the day and throughout the next morning, focused by wall-sized versions of a planning tool developed by the Grove called the “Graphic Roadmap” (see “Graphic Roadmap Template” on p. 9). Each breakout group presented their plans to the rest of the participants before the final café rounds closing the conference.

“Softening Hard Soil”

In analyzing the conference results in a conversation with Laurie, Lenny, and I, Juanita Brown saw that the combination of the visuals, the World Café process, and the Council technology “heightened the possibility of collective intelligence. One of the big things we find over and over in café work,” she said, “is this very intentional cross-pollination of mix, mix, mix. It’s softening hard soil, so the soil can be receptive to new ideas.”

The computers served as the “common tablecloth on the café table of conversation,” Brown said, that

everyone in the room could refer to. It made the collective knowledge visible and led to an accepted conclusion in the whole room at a much earlier stage than is the case in many meetings. In a normal café dialogue where there aren’t any computers, she said, people sense their common conclusions, but they don’t have the level of detail to support them that the computer feedback supplies. The anonymity of the answers also helped with the positive meeting result, Brown said. “You don’t know where the ideas are coming from, so people can more easily accept innovative thinking as it is revealed in the spaces among participants. The space between the ‘me’ and the ‘we’ becomes more fluid and the ‘magic in the middle’ has the opportunity to emerge more easily.”

Conference attendees were just as enthusiastic. As they moved to close the conference, participants answered one last question through the computer: How did this conference compare to the last? “Phew! We had to work this time. The format, structure, people were spot on.” Said another, “It was great!”

So what did we learn? What questions remain unanswered? We learned the whole was far greater than the sum of its parts. Each of the processes works well alone, but in combination, the strengths were maximized and the weaknesses minimized. Also, we confirmed again risk-taking combined with collaborative planning are important. So is quickly creating a sense of “we” in a room divided into many camps.

Will the agreements made, the visions offered hold up? We don’t know. The big question is how a process can further deepen commitment to action, and how, really, conversation in big groups can ultimately lead to significant action. ■

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THE CONVERSATIONAL POWER OF MAPPING OUR MENTAL MODELS

BY VAN BOWEN AND HUGH O'DOHERTY

Suppose that I bought a \$34 ticket to hear a concert and, on the way to the event, I lost the ticket. I might decide not to buy a new one, reasoning that I would never pay \$68 to attend a concert. But on the other hand, if instead I had lost my wallet with exactly \$34 in it, I might heave a sigh of relief that I still had my ticket and go on to enjoy the concert. Depending on my frame of reference, I see the same economic event in vastly different lights.

This example illustrates the power of mental models in shaping our behavior. And, when representatives of diverse constituencies gather, each with their own perspective, the setting is ripe for conflict. We have found that using systems thinking and system dynamics tools to map a group's mental models can help the members focus on the dynamics of the underlying structure rather than on the emotions that it provokes. This shift in focus can be a powerful stimulus for conversation and for resolving conflict.

Learning to Model

In the fall of 1997, 12 college students participated in a class on leadership. Two of the objectives were to have students learn to apply systems thinking and to introduce them to the *ithink*[®] software for creating system dynamics models. To get students to use the tools on a real-world example, we created an in-class exercise that dealt with the different factions created by inheritance tax regulations. An unintended conse-

quence of these regulations is that inheritors often feel pressured to sell family farms.

We divided the class into three groups, representing farmers, real-estate executives, and the Internal Revenue Service. The fourth group was charged with resolving the discord among the three factions using a "town meeting" framework.

Before the first "town meeting," the students studied the grammar of system dynamics mapping, including stocks, flows, and feedback

relationships. Nevertheless, when they gathered for the meeting, the participants fell into advocating for their particular constituency. The meeting was conducted in a cordial and civilized way, yet everyone left feeling like an angry loser.

A Breakthrough Approach

With additional coaching and an elevated competence in systems mapping skills, the consultant group started the second "town meeting" with a few stocks and flows on the blackboard. They then encouraged members of the three constituent groups to add additional dynamics to the map.

As each group enriched the diagram, the participants felt an increased sense of cooperation and ownership of the representation of the system that they were helping to create. The advocacy framework observed in the previous meeting was replaced by a joint effort to discover an accurate depiction of the dynamics created by the inheritance tax regulations.

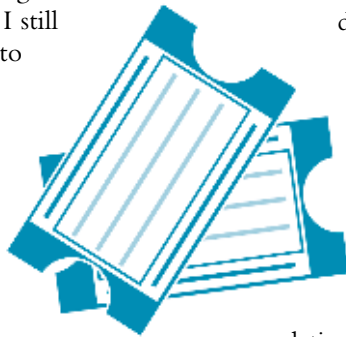
In the end, all three factions won! The group had created a map of the core structure of the inheritance tax system and its effects on the three different factions. Before, people's unspoken mental models had caused them to become defensive and adversarial. With the joint creation of the stock and flow diagram, the participants were able to agree on how the current laws created unintended consequences and could speculate about possible solutions to these problems.

Mapping for Conflict Resolution

The inheritance tax case study demonstrates how mapping can serve as a tool for conflict resolution. A third party, competent in modeling, can mediate a dispute by assisting the protagonists in creating a diagram of the dynamics that "trap" them in certain patterns of behavior. This process demands cooperation among the parties, but the end result is an illustration of the unintended consequences of the way each party makes sense of the world and the self-fulfilling nature of the system they create as a result.

Creating a clear, visual map of a system promotes learning by depersonalizing our own mental models and giving us a way to examine alternatives. Thus, the process of mapping the basic plumbing of a system can be a powerful leverage point in and of itself that can open a "flow" of learning. ■

Van Bowen is emeritus professor of mathematics and computer science at the University of Richmond (<http://oncampus.richmond.edu/~vbowen/>). **Hugh O'Doherty** is adjunct lecturer in Public Policy at Harvard's Kennedy School of Government.





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