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FUTURES FLUENCY:
EXPLORATIONS IN LEADERSHIP, VISION, AND CREATIVITY

A DISSESION SUBMITTED TO THE GRADUATE DIVISION
OF THE UNIVERSITY OF HAWAI'I IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

POLITICAL SCIENCE

MAY 1995

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ABSTRACT

Current leadership research suggests that articulating a transformational vision defines leadership as an activity. This study hypothesizes that transferable skills and perspectives exist which engender the insights and creativity resulting in vision, and thus that leadership itself may be teachable. Chapters Two, Three, and Four suggest links among several concepts: "images of the future" and "vision," "vision" and "ideology," and "vision" and "leadership." Each concept is defined with respect to the future and social change.

Chapter Five explores and illustrates "futures fluency," a metaconcept incorporating both the defined concepts and their links, and operationalizing them in activities designed to enhance foresight, leadership, and planning. The five component activities of futures fluency are 1) identifying change; 2) critiquing its implications; 3) imagining difference; 4) envisioning ideals; and 5) planning achievement.

Chapter Six describes an array of workshop techniques, group exercises, and sample agendas which transfer the skills comprising futures fluency; Chapter Seven offers five workshops as case studies which illuminate uses of the exercises in different organizations, as well as criteria for success and failure in skills transfer and outcomes. The final chapter offers suggestions for further research.
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CHAPTER ONE
STATEMENT OF CURIOSITY

The very essence of leadership is [that] you have to have a vision. It's got to be a vision you articulate clearly and forcefully on every occasion. You can't blow an uncertain trumpet.

-- Theodore Hesburgh, former president of Notre Dame University

OVERVIEW

Questions

During the McNeill/Lehrer broadcast of July 4, 1989, Robert McNeill asked James MacGregor Burns what single crucial quality current U.S. leadership lacked. Burns replied in one word: vision. With President Bush lampooned in Doonesbury for fluttering about "the vision thing," this lack obviously achieved widespread recognition. We can not wait for a compelling vision to spring full-blown from the brow of a single visionary -- with legions of complex crises facing humanity, we need to cultivate every source of vision we have.

And every source of vision we have is each of us. The more visions people generate, the greater the probability that one will emerge to galvanize communities, nations, or the planet as a whole into creating a more positive future. A photographer shoots many rolls of film to get the perfect shot; a potter throws and shatters many pots to get the perfect pot.
What exactly is vision? Where does vision fit in the taxonomy of concepts about the future, and in the social construction of reality -- pasts, presents, or futures? What relation does vision have to leadership, to politics, to power? Is it possible to identify what skills aid in creating vision, and to disseminate those skills?

As a statement of curiosity, those four questions push the envelope for one book. Yet they do define the outer coordinates of the intellectual landscape I wish to explore. My substantive focus is vision and leadership. With that focus, I propose to locate conceptual links among three political science subdisciplines: futures research, critical studies, and leadership studies.

Linking the Subfields

This focus invokes futures research first to define vision -- a positive image of a preferred alternative future -- and to clarify its social function. The literature suggests that vision works primarily to instigate social change. In his seminal work, *The Image of the Future*, Polak describes the positive image of an ideal society as "pulling" present society into the future. In a more recent analysis, Boulding suggests that the image of the future sets up a "deviation-amplifying mutual causal network." This network influences social processes to reshape themselves in congruence with the envisioned future.

Second, envisioning a preferred alternative future calls for a diverse fund of alternative images and image fragments as the building blocks of vision. This
envisioning also requires the syntactical guidelines for combining those building blocks: the architectural rules. A compelling vision of the future will ring true; to do so, it must be internally consistent. Ability in the recognition and manipulation of images of alternative futures is futures fluency; my overarching purpose is demonstrating its usefulness in enhancing leadership.

Critical theory provides the means to analyze how visions both create and constrain possibilities for individual and social action. Images of the future by definition challenge the structures of the present:

the idea of a Future which is drastically different from the Present...is the idea of a future as The Other, or as a new dimension of this world, the perfected antipode of the imperfect here and now.²

By constantly asking, "what if things were different?" images of alternative futures unveil the day-to-day assumptions and internalizations that keep things the same, that buttress resistance to change. This ability to problematize the present opens up a conceptual space in which people can plan action and in which leaders can emerge.

Envisioning an alternative future and, with conscious intent, catalyzing its birth is a creative project requiring people as the medium. It is, in short, leadership: so states the recent literature in both political science and business studies. Two of the more lucid examples are Tucker's Politics as Leadership and Bennis’ and Nanus’ Leaders. Both make very clear the difference between managers of social organizations and leaders. The former direct group processes to maintain status quo; the latter meaningfully diagnose crisis
situations, and offer a corrective vision which mobilizes and guides social action.

This perspective is drawn directly from MacGregor Burns' classic work, *Leadership*. In it he stresses the transformative characteristic of leadership, "the capacity to translate intention into reality and sustain it." It is creative use of vision in organizing people that distinguishes leaders in all communities from those who are merely managers, politicos, diplomats, civil servants, or bureaucrats.

**Limitations**

Skeptics reading this have cause to be amused at the preceding restatement of those expansive initial questions: it is hardly limiting. Certainly suggesting a design path to vision for the purpose of enhancing leadership could exhaust volumes using even one of the disciplinary perspectives mentioned. However, I choose to focus on the connections, on the interdisciplinary nexus. Chapters Two, Three, and Four will define and summarize briefly each discipline's relevant concepts and contributions to the whole.

While these essays might be anterooms to palaces of intricate theoretical discussion, I do not seek to explore the separate palaces: I seek to prove that in one dimension at least, all the anterooms open on to the same space. I have named that space "futures fluency." This approach courts certain unattractive
faults, glibness and banality first among them. The aim is accurate brevity in service to a larger design.

**Hidden Agendas**

*I like the dreams of the future better than the history of the past. -- Thomas Jefferson to John Adams*

So much for caveats. Two stimuli prompted this research design. The first is an abiding rapture with change, chaos, and complexity: innovative technologies, unexplored cultures, unknown species have always fascinated me. Even more am I transfixed by the transformations, evolutions, and interactions of each with the others. Hence my long-term attraction to conceptualizing alternative futures.

The second stimulus is a direct reaction against an over-emphasis in critical theory "delivered truth" with respect to at least three debates: 1) the role of institutions vs. agents in social change; 2) hard-hitting critical discourse vs. futures naivete; and 3) intellectual detachment vs. pragmatism. That is, I have over the past ten years found disturbing those Marxist-derived institutional analyses which failed to acknowledge that institutions are composed of individuals. Surely some of those people are capable of critical, informed thought. Hence my interest in leaders: individuals within systems visibly acting to some effect.

Likewise I have been consistently surprised by colleagues’ criticism that futures studies is not critical, that it is, in fact, naively accepting of present structures of power. Like other disciplines, futures studies contains techniques
and theories that may be used to "support and propagate...the dominance of [oppressive] social groups". Among its more obvious flaws are ethnocentrism, scientism, technological determinism, and elitism. But the creation of a vision, a positive image of an alternative future, is itself a critical act. In formulating an image of the future as other, as specifically different from the present, people critique either implicitly, by omitting or correcting current social structures, or explicitly, by identifying current flaws and their attendant processes, and offering specific responses. Furthermore, in the best cases envisioning alternative futures is a participatory act of criticism, involving communities of interest.

Finally, it is very well to critique political and economic institutions; politicians, businesspeople, and bureaucrats; and world economic systems; but what can we do to foster not just individual critical thinking, but also initiative and creative, constructive thinking? Criticism alone will not spawn the human futures.

Futures research is not an intellectual eccentricity; it feeds the very roots of the social sciences. As Bell puts it,

...the study of the future in social science during the last few decades has been neglected.

This is particularly ironic inasmuch as many of the founders of social science were obsessed with the future. The father of sociology, August Comte, and the other 'prophets of Paris', both unveiled the future and tried to give it directions. For them, the past was prologue, the present a burden. They longed for the future. Comte put it succinctly. The whole purpose of his work was the future: savoir pour prevoir.4

The purpose of this study is to redress, however slightly, this imbalance as it occurs in political science.
EXPANDING AND REFINING CURIOSITY

Leadership and Vision

Initially, it was the ability of leaders to create social change that drew my interest. But my first difficulty lay in defining leaders. The traditional political science literature often used the term "political elites." People who failed to follow my initial statements closely would, without fail, ask me what made me think politicians thought any further ahead than the next term. Backing up, I would respond that my interests encompassed political elites: politicians and civil servants and businesspeople and community opinion leaders, or, borrowing from Putnam, proximate decision makers and influentials and activists. This usually provoked an even brusquer repeat query: what made me think these people considered the future at all?

This gave me pause, for the answer seemed clear. Every year politicians vote on, and civil servants implement, plans for roads, water and electrical systems, and public buildings, all of which have lifespans of at least three decades. Social security systems have lifespans longer yet. Businesspeople finance ships, pipelines, factories, telecommunications systems, all of which require decades to depreciate. How could these people not be considering the future?

At this point the light dawned: they do consider ‘the future’, as a single, stable state continuing from ‘the present’. The important question is, do political elites consider alternative futures? Are they capable of the disjunctive
thinking that creates images of 'the other'? If so, do they apply this skill to political and economic decision-making? If not, would it be the better part of wisdom if they did?

The prevailing wisdom in the fields of governance, management, and leadership clarified some of my theoretical muddle: political elites do not consider alternative futures; leaders do. No matter whether a Senator, a factory foreman, a chief executive officer, or director of a citizen’s action group, leaders may be identified by their irrepressible urge to blow a certain trumpet, to paraphrase Hesburgh. While a leader is very likely to be a political elite of one sort or another, political elites are not likely to be leaders unless they develop and apply the skill in creative, futures-oriented thinking that engenders a compelling vision.

Next question: Is it a political good to have leaders capable of envisioning alternative uses, alternative end-states, of the objects of political and economic decisions? My answer would be, yes. In their tenure on the planet, humans have created a complex, chaotic environment blending the natural with the technological. From a neo-Social Darwinian perspective, organisms facing this environment must be as flexible as possible in their adaptive strategies. As we change our environment we must, with foresight, change ourselves. For in so many ways we are our environment.

The challenge, then, is to formulate an active research method: an approach which both investigates and educates. It must be capable of
assessing the degree to which political elites can generate alternative images of
the possibilities and of the effects inherent in their decisions. It must also offer
a means to improve their ability to do so. Such a research approach might
contribute to increasing the incidence of leadership in the world.

**Leadership and Ideology**

Can the 'Great Man' theory explain anything useful about social change?
The theories in vogue in this institutional age stress interest groups, or
economic classes, or world systems. Where within these monoliths does
individual action lie? Why bother every morning with work? Without wishing to
flirt with either angst or nausea, that latter question does seem slippery with
regard to us common folk. Most people, after all, have very few resources with
which to alter humanity's momentum.

But in every social system those people exist who do command change-
inducing resources: resources such as people, technology, capital, media, or
even that ephemera, public opinion and good will. When these people have a
goal, a plan, a vision, they bring all those resources to bear on its behalf. We
'common folk' may, in fact, be the resource they spend to realize their vision.
The means elites use to manage us are all the modes of ideology. The
individual's image of the future becomes political ideology, which becomes the
social vision. But the reverse is also true. In fact, a linear conceptualization of
this transformation is nonsense. These three concepts - image, ideology, vision
- form the nodes of a system continuously in flux.
Considering ideology vis-a-vis leaders, do they transmit it, or does it transmit them? Are they the medium by which the individual image becomes the social vision? New entries in the leadership literature say that they are: as previously stated, leaders may be distinguished from mere political elites by an ability to formulate compelling visions. But are they persuasively voicing their own desires, or are they somehow articulating widespread but latent social goals?

The long-term goal, the vision, is used to legitimate present-day decisions and the regimes that make them. It is used to rationalize policy agendas, and to bound individual behavior. That is, the promise of the vision makes difficult policies palatable, and it reinforces our willingness to act in support of those policies. As we internalize the rationale of this promise, we are less likely to question the policy program, or offer alternatives.

Embedded in all ideological systems is a vision of the future; the question is, when does the creative, compelling force of that vision become constraint? What is an image of the future? How does it come to be the kernel of political ideology? How can it be used to empower people to move beyond ideological limits in imagining and acting?

Again, the answers lie in the distinction between the vision of the future, and a vision of an alternative future. To understand leadership, the emergence of effective vision, and the constraints ideology places on social problem solving, one must explore the landscape of possible visions. In this landscape
we can fully realize the potential that images of alternative futures offer to criticize the present and to motivate the future.

**Leadership, Vision, and Images of Alternative Futures**

*It is our future that lays down the law of our today.*  
--- Friedrich Nietzsche

In futures research, it is axiomatic that one may not study the future. One may not even study alternative futures: they do not yet exist.

There are several reasons why the past has dominated social science thinking. One important factor is narrow positivism -- an epistemology designed to deal with facts. Facts are, by definition, phenomena of the past. There are no future facts. Thus, the logic of determinism invites the backward look, and the past comes to pervade the classroom and the research center. By contrast, the forward look has an openness not easily handled within a thought system constructed to deal with events that have already happened.⁵

What has "already happened" is people's thinking about future possibilities. People's expressions of their beliefs about the future are available to research.

Beliefs about the future dictate human behavior, as Nietzsche forcefully states. Harman explains the matter more pragmatically:

...our view of the future shapes the kind of decisions we make in the present. Someone has a vision of the future -- of a great bridge, a new industrial process, or a utopian state -- and as a result certain events are taking place in the present. Our view of the future affects the present as surely as do our impressions of the past or the more tangible residues of past actions.⁶

Actions are based on decisions people make about the landscape of possibilities they perceive emerging from the present. That landscape may be narrow or wide, flat or peaked, empty or diversely populated. It all depends
upon how much effort people put into perceiving that landscape: thinking, imagining, and questioning.

What is an image of the future? As a first approximation, it is one's image of reality overlaid with expectations concerning the processes of that reality.

Just as all social groups and institutions have, in effect, collectively shared images of the future, each individual also has, in his or her cranium, a set of assumptions, an architecture of premises, about events to come. The child, almost from birth, begins to build up a set of expectations from its daily experience. Later these expectations become more complexly organized, and they begin to encompass more and more distant reaches of future time. Each person's private image of the future shapes his or her decision-making in crucial ways.7

This definition centers on the individual. While it is individuals that create images of alternative futures, those images are politically significant only when jointly held. For the purpose of political analysis, the image disseminated and internalized by the culture is more interesting than the solitary dream.

But this is precisely the area where futures research lacks depth in previous analyses. Past studies of culture-wide images of the future spotlight the compelling, positive vision: the image as future good, as utopia. Fred L. Polak's seminal work, which forms the cornerstone of Chapter Two, argues every culture's need for a positive image of the future as a condition of viability.

More recently, Huber succinctly restates this conceptualization:

We...will view images of the future as visions of ideal states that could become realities in the foreseeable future. Thus, we are dealing with what might be referred to as "realistic utopias" or "realizable ideals." These images can be articulated as very detailed pictures of desirable futures or simply as a set of long-range goals that can orient action.8
Bennis and Nanus, in making their case for the distinction between leaders and managers, define the positive vision on an organizational scale:

This image, which we will call a vision, may be as vague as a dream or as precise as a goal or mission statement. The critical point is that a vision articulates a view of a realistic, credible, attractive future for the organization, a condition that is better in some important ways than what now exists.\(^9\)

But positive visions can reify. Utopias can become monocular utopianism, an ideological straitjacket that limits creativity in the name of the compelling positive vision, the good Other. Utopianism produces totalitarian visions that assume the effectiveness of only one specific organizational structure. Critical futures imaging produces visions that allow a plurality of organizational approaches, voluntary participation, and formulation of alternative visions. A positive vision that lacks the means to engender its own replacements will reify.

Avoiding this reification is the primary motive for encouraging futures fluency: the envisioning and critical consideration of images of alternative futures. We must educate the young today for vision and leadership tomorrow; we must encourage those who are political elites now to fluid and fluent thinking about the future. The next few paragraphs will limn the path of my explorations in these issues.

**DISSERTATION STRUCTURE**

Having already listed limitations, revealed hidden agendas, and drifted through a garden of bright biases, these final paragraphs shall be confined to unembellished description of the succeeding chapters. My intent is to clarify
the overall pattern and major themes, that they may more easily be recalled for context in the welter of detail to follow. In brief, the dissertation has five goals: 1) composing a rich definition of "vision" and "images of alternative futures;" 2) establishing the ideological implications, if any, of images of alternative futures in politics and in leadership; 3) composing a working definition of "leadership;" 4) defining and illustrating "futures fluency;" 5) compiling an inventory of skills in futures fluency that guide people to envision alternative futures and create visions; and 6) demonstrating a means of applying futures fluency to enhance those skills among actors currently at large in the political arena.

**From Images to Visions**

Chapter Two is essentially an exercise in fully elucidating the concept of "images of the future," which includes as a subset the concept of "vision." This conceptual mapping works outward from a review of Fred L. Polak's *The Image of the Future*. Critique of the work's flaws fills in the conceptual details. This process is aided by comparing Polak's structure for analyzing the image of the future with Fernand Braudel's structure for analyzing the image of the past. In addition to identifying the dimensions that comprise a rich definition of the image of the future, this comparison discusses the range of sources and locations for images of the future.

**Visions as Agenda and Critique**

Chapter Three investigates the uses of ideologies in societies and political systems in such areas as community generation, political legitimation,
and social control. As a theoretical backbone, this chapter compares the usefulness of the perspectives of Habermas and Foucault in analyzing the political impact of the image of the future. Hence, while following Polak in identifying the images of the future embedded in political ideologies, this also considers the image as a tool for social constraint, and as a text publicly performed by leaders. The role of futures images in ideology is rounded out by consideration of images of alternative futures as tools for critique.

Leaders as Voice and Illumination of Vision

As a starting point, Chapter Four briefly reviews the history of leadership and elite studies in political science, concentrating on common analytic approaches. The chapter's focus then shifts to the bloom of recent writing in the business and management literature on leadership, vision, and team performance. The intersection of these two literatures provides a rich definition of what leaders do, and what media, arts, and sciences leadership requires. This definition suggests not only the need for futures fluency and vision in enhancing leadership, but also the need for vision linked to pragmatic, strategic planning.

Defining Futures Fluency

Chapter Five introduces the five elements of futures fluency: identifying and monitoring change, critiquing implications, imaging difference, envisioning ideals, and planning achievement. The first section offers an introductory overview to the concept. The second section gives context, examples, and
approaches for each element, and also outlines the primary research technique appropriate to each. The final section sketches the relationships among the five elements that comprise futures fluency.

**From Futures Fluency to Vision**

Beginning with basic foundation skills in process and creativity facilitation, this chapter describes a range of guided group exercises which allow individuals to work together to develop futures fluency and create community vision. Basic facilitation skills are introduced first because these are group exercises, and creativity warm-ups help reactivate atrophied right-brain skills: imaging the future well means imaging difference. The next section describes exercises designed for each specific component of futures fluency. For each category, a matrix compares working characteristics of each exercise, including its design objective, the amount of time it takes, and the ideal output. The exercise worksheets themselves are found in Appendix A. Chapter Six concludes by suggesting possible workshop designs varied according to group goals and resources.

**Enhancing Vision in the Political Arena**

Chapter Seven presents five case studies which demonstrate how different combinations of futures exercises can enhance futures fluency and create vision within the political arena. These five were chosen because the organizations, venues, workshop structure, and outcomes all varied. The first half of the chapter provides a structure for comparing the five pilot studies; the
second half actually describes each case based on that structure. Transcripts of the output from each case are offered in Appendix B. The cross-case summary offers guidelines for most effective use of the exercises given varied circumstances.

Next!

The final chapter offers suggestions for further and improved research on futures fluency. It also indulges in blowing its own certain trumpet with regard to a futures fluency tempered by critical thinking. Espousing a political goal of participation in anticipation, this summary focusses on creating and recreating ourselves as better leaders and better followers.

SUMMARY

My interest in the future stretches back to a summer vacation in Maine when I was twelve. In looking for something to read I was drawn to the lurid cover of a science fiction paperback, and from there I found Isaac Asimov's *Foundation* series, and Arthur C. Clarke's *Tales from the White Hart*, and inevitably *Star Trek*. Science fiction provided me with an ever-expanding array of images of alternative futures to consider. With the fascination I inherited from my father in all things mechanical and electrical, the result was an abiding interest in science, technology, and social change -- and the political negotiation of change.
Growing up in the latter half of the 20th century meant growing up with the atomic bomb a spectre of fear in the closet and the Vietnam War a horror show broadcast live to the living room. The paranoia of the Cold War slowly dissipated in the United States, but has been replaced at the brink of the millenium with a deep underlying pool of unhappiness and fear: we are afraid for our jobs and our economic security, afraid for our health and well-being in a context of environmental degradation, afraid for the safety of our children, our vulnerable parents, and our own lives and property in the context of societal and community decay, and we are afraid for the future. The situation cries out for transformational leadership, and none seems to be available. Many of our older statesmen are still trying to address the problems of the first half of the century, and seem unable to perceive the problems that are rushing upon us from the millenium. Those in positions of leadership who do perceive the approaching problems, seem overwhelmed by their scope and complexity and completely unable to grapple with decision-making in states of chaos and uncertainty.

This study articulates one response to this millenial ambience of fear and uncertainty: present the future as a creative challenge which enables everyone to exercise leadership skills. Previously, the future has been colonized by the rich and the powerful who could marshall more resources to shape it than most people could. The critical resources of the next millenium, however, will be human potential and information, and people all around the world are now
beginning to realize that even the poor can decolonize the future if they work together creatively. This then is my agenda for futures studies: not to sell a specific vision to even one other person, but rather to evangelize the process of visioning itself so that we may create our futures via dialogues among a billion visions. You can move into whichever you’d like.

I do, of course, have my own image of a preferred future, a vision I work to create. Its driving forces are technological innovation and human creativity -- or maybe I should say whimsy: the irrepressible human urge to play. The primary design aesthetics are elegance, efficiency, durability, individuality, and minimizing environmental impact. Lifelong education aims to nurture all the modes of human intelligence and all our potential skills from woodworking to aerospace engineering, from transcendental meditation to caber-tossing. We face the challenge of leisure time -- empty hours -- and find new projects in strengthening relationships with our neighbors, strengthening relationships within our families (however they are structured!), and strengthening ourselves, emotionally, intellectually, and physically. Heightened understanding of the complex systems of our environment, in both the rational/logical mode and the intuitive/spiritual, bring about a gradual healing not only of the biosphere but also of the excesses and imbalances of human societies themselves. We struggle to respect both human rights cultural diversity. We struggle to meet the basic needs of all people, and provide equitable access to resources for all. We strive for balance, beauty, and joy, and we are going to the stars. Join us.
NOTES

1. Father Theodore Hesburgh (former president of Notre Dame University),
   *Time*, May 1987, 41.


CHAPTER TWO
FROM IMAGES TO VISIONS

IMAGE FOUND TO IMAGE CREATED

What will Europe look like in 2025? or Hong Kong? Who will win the play-offs? Will the hurricane season be bad this year? How will the stock market perform next quarter? Will I acquire fortune and glory? Is the Apocalypse imminent? People have always thought about the future. For millenia humanity has tried to peer beyond the interval of the present.

The future was for thousands of years the jurisdiction of the gods and their near servants, the religious, political, economic, and cultural elites. The shamans, mystics, priests, and oracles controlled the future -- or at least the production of images of it. This remained true up until the latter half of this century: the oracle at Delphi has been replaced with the oracles of IIASA and the Delphi method, but the images are still produced by academic elites for political and economic elites. Methods of reading the future in tea, entrails, and smoke have simply been replaced with slightly tidier techniques.

A watershed occurred when thinking about the future swung from the intuitive, spiritual, and mystic to the logical, rational, and mechanistic. While the farthest reach of that pendulum swing represented perhaps too extreme a reliance on quantitative modelling, it also created a more instrumental, pragmatic perspective which assumed that people could create their own future.
Recent methods which combine intuitive and qualitative approaches with trends databases suggest the emergence of a practical synthesis of the two extremes. This introduction to the role of images of the future and creativity in leadership begins by tracing the development of research on images of the future.

The modern study of images of the future and their impact on social change began effectively with Fred Polak, who in 1955 published a sweeping cultural analysis of images of positive futures through time. The second section notes additions to his notion of the image of the future, and narrows the focus to venues less sweeping than whole civilizations. It concludes by reviewing recent efforts to reduce the monopoly that elites and outliers have on image visualization by approaching image creation as a teachable skill.

THE IMAGE OF THE FUTURE

Fred L. Polak’s magnum opus, The Image of the Future: Enlightening the past, orientating the present, forecasting the future, takes as its task the analysis of cultural change based on the vibrancy of a culture’s implicit image of the future.

The rise and fall of images of the future precedes or accompanies the rise and fall of cultures. As long as a society’s image of the future is positive and flourishing, the flower of the culture is in full blossom. Once the image of the future begins to decay and lose its vitality, however, the culture cannot long survive.

While he acknowledges that many forces interact to create history, he nonetheless affirms that the positive ideas and ideals of humanity, expressed as
positive images of the future, make history what it is. These images serve as "motifs and guiding stars" to the societies which create them.

Motivating images can exist, Polak argues, because people have the capacity to split their consciousness between recognition of the instant, the immediate, the here-and-now, and some time, space, and reality completely and discontinuously Other. Within the space opened up by this split consciousness, people can create images of a future time and a future world of ideal and idealized conditions, where the sorrows of the present are considerably or absolutely ameliorated. These images also subsume the expectations people have regarding the behavior of the natural world, the behavior of other people, and the behavior of the gods, if any, in response to religious practices. Embedded in images of the future are the implicit notions people hold of what drives social change.

In order to affect cultural change, the images must picture another world vastly different and vastly preferable to the present and must be widely disseminated throughout society. Using these two criteria to select images for study, Polak analyzes them along two continua: essence-optimism and -pessimism, and influence-optimism and -pessimism. By essence he refers to the culture's perception of the untouched course of historical events: what would happen if people did nothing. By influence he refers to the possibility of human intervention in the course of historical events. Influence may either be direct, the action of people upon reality, or indirect, the action of people to sway
a higher power to act upon reality. Utopian images of the future result from the secular approach dictated by direct influence-optimism -- we can create a better world; eschatological images of the future result from indirect influence-optimism -- if properly propitiated, God will create a better world for us.

If both essence-optimism and influence-optimism characterize a culture's image of the future, then it believes that history is basically unfolding for the best, but that people can work to improve it even more. These are vibrant, vital cultures. Cultures that are essence-optimistic and influence-pessimistic also remain vital, for although their members feel nothing they can do can change the way the world is, they feel the world is gradually improving all on its own. Cultures which are essence-pessimistic and influence-optimistic feel that, left to themselves, things would go from bad to worse, but that people can change that and improve things by applying themselves. The cultures which are in trouble have images of the future which combine essence-pessimism with influence-pessimism: things are going to hell in a handcart and there isn't a damn thing we can do about it.

The final concept on which Polak's analysis rests is that of challenge and response. For, he states, the real puzzler is not the rise and fall of cultures, but the emergence of robust and dynamic images of the future. What is their genesis? To answer that question, he borrows Toynbee's notion of challenge and response, pointing out that Toynbee never clarified what the source of
challenge was, nor what form the response took. Polak suggests this clarification:

The challenge of the times need not only be based on the past, as it pushes into the present. It can also be based on the future, which draws the present to itself. The future challenges us to examine and prepare in advance to solve the problems which it has in store for us, problems which may well overwhelm us with their sudden onslaught if we do not anticipate them. It is the not-yet-existent future, or certain special possibilities out of a numberless infinity of possible futures, which throws light or shadow on the present...[And an] adequate response to the ever-shifting challenge of a rapidly-changing future can be nothing less than a comprehensive and inspiring vision of the future!³

The problem, and the conclusion of his survey of cultural history, is that Western civilization no longer has a comprehensive and inspiring vision of the future, and that unless one emerges, the culture will wither away.

Where has our image of the future gone? Into our arrogant confidence in our ability to manipulate the present, objective reality and our fixation on the tangible, material present. Western culture is so satisfied with its ability to influence change that it no longer sees the need to do so. Furthermore, what images of the future do exist in modern culture are fragmented, contradictory, dehumanized, and lack spiritual depth.

But, he concludes, we can still save ourselves. Salvation will require a transcendentally idealistic, widely disseminated image of the future. Such an image must be "purposeful, vital, and inspiring:"

These images must have the power to tear our civilization loose from the claws of the present and free it once more to think about and act for the future. The seed of these images becomes the life-blood of our culture, and the transfiguration of our civilization waits upon the sowing of new seed.⁴
Nothing retreaded from the past will do; nothing light-weight, ephemeral, or easily devised: Madison Avenue can't design an public service ad campaign for this. Polak advocates a tripartite strategy: 1) reawaken the culture's dormant awareness of the future; 2) nourish cultural awareness; and 3) revitalize creativity. Fortunately for Western civilization, in the four decades since Polak published *The Image of the Future* the maturing field of futures studies has been attempting those very tasks.

**FURTHER ENRICHMENTS**

**The Family of Image Concepts**

In the 1950's, contemporaneously with Polak, Gaston Berger was also investigating humanity's perspectives on the future. Like Polak, he conceptualized it as quite separate from the past. Given this lack of temporal continuity, the future has meaning only in relation to our actions. This opens up the possibilities for life and the world, investing the future with immense creative potential. This perspective emphasized the infinite possibilities inherent in the future, setting the stage for consideration of arrays of possible futures.

Succeeding Berger at the Centre d'Etudes Prospectives in Paris, Bertrand de Jouvenel began his work in futures studies by systematically describing images of probable futures. He is best known, however, for proposing the 'art of conjecture,' the intellectual construction of likely futures. While this exercise begins with probable scenarios, it stresses suggesting ways
of bringing probable futures closer to our image of the desirable. He also suggested creating positive images of the future to ameliorate people’s distrust of change.

In the United States, Olaf Helmer and others at RAND were devising ranges of scenarios via computer modelling, and exploring qualitatively derived relationship between possible and probable images of the future with the newly invented Delphi technique. Scenario modelling via computers, such as the Limits to Growth, Mankind at the Turning Point, and Bariloche studies, were generating interesting counter-intuitive models of possible global growth scenarios. Proprietary work done in corporate headquarters was exploring qualitative means of creating and communicating scenarios of possible futures. Of these, probably the best-known scenario team was housed at Shell Oil Company’s international headquarters in London; Peter Schwartz has summarized the lessons learned from those efforts in The Art of the Long View.

The international field of futures research grew dramatically, and chaotically: as a discipline, it has not yet fully defined its own structure. Perhaps the most succinct early codification was Roy Amara’s three-part essay, “The Futures Field.” This essay greatly widened the theoretical discussion of images of the future from the simple base established by Polak. Rather than focussing only on culture-spanning utopias, futures studies now encompasses all the images of the future that people hold, because the image influences
action. Amara analyzed the entire field of futures studies in relation to a triadic taxonomy of images of the future: possible futures, probable futures, and preferable futures.

The field has also deepened its perspective on images of the future. It now looks to create alternative possible images in addition merely to identifying extent images. With the self-conscious invention and application of ways to create alternative images of the future, the images are now much richer in detail. Where Polak offered specific details of images of ideal futures, he was drawing on individual products of intuition and inspiration. Although artists, authors, and visionaries are still creating images of the future, researchers attempting practical and applied image creation are now much more methodical -- even to the point of applied intuition and creativity (see Chapter Six). In all techniques, however, scenario creation begins with a theory of social change. It is the irreplaceable keystone of scenario creation. Very few scenarios, however, explicitly incorporate Polak's theory on images and cultural vitality; the a prevailing theory of social change apparent in many scenarios is the assumption that technological innovation drives social change.

An offshoot of the corporate futures research in the sixties and seventies has been business's focus on images of ideal futures, or vision. These images of preferred futures for the micro-cultures of corporations are used, in miniature, for much the same effect that Polak describes for world cultures: to inspire, to motivate, to create meaning. They are usually linked to a strategic planning
process that links the organization's vision with its sense of mission and long-range goals. Creating these visions help corporate communities ask themselves, "where are we going, who are we that we want to go there, and what are the immediate and long-range goals that will get us there?"

In the pages that follow, the nomenclature used will draw on Amara's taxonomy of possible, probable, and preferable images of the future. An infinite number of possible futures exist; a smaller subset of those are probable to varying degrees; and another small subset of possible futures are those people would prefer. The probable and the preferable do not necessarily overlap. "Scenario" will generally denote a possible alternative image of the future. "Vision" will always denote an image of a preferred, idealistic future.

![Figure 1. Possible, Probable, and Preferable Futures](image)
The social change assumptions are based in the creativity and playfulness of the human spirit, and include the idea that people innovate, creating new technologies and possibilities and over-riding others. This includes our creation of symbols, myths, and images of the future. Those technologies and possibilities then re-create us -- sometimes with our conscious knowledge and recognition, and sometimes without. Finally, this study assumes that there are infinite alternative pasts, which compress as they approach the interval of the present, and will, as perfume through an atomizer, disperse in infinite combinations of futures after they pass that barrier.

Figure 2. Pasts, Presents, and Futures
Creative Imaging

Consciously and systematically learning to create alternative scenarios of the future is an equilibrium shift in how people think about the future. Devising means for entire communities to do so is a recent innovation that takes us one step closer to finding a solution to the dilemma that Polak identified. The examples cited do not exhaust the activities in participatory imaging and envisioning occurring around the world; they are merely representative.

Funaro and Riner, cultural anthropologists with an interest in futures studies, have devised workshops that ask participants to design cultural futures. Not the futures possible for a given culture, but instead, the potential myths, art, and structures of entirely new cultures that will develop or be found in the future. One version designs new cultures for human colonies on other planets or in extended-voyage space-ships; yet another offers people specifications on a planetary environment and suggest that they design an alien species, and its attendant culture, to inhabit the planet. The culmination of this workshop is often a simulated contact with the human culture on the exploratory ship.\textsuperscript{12}

Ackoff, Senge, and Nanus all focus on images of the future within organizations, primarily businesses. Ackoff presents a rather acerbic review of planning, most of which he dismisses as inactivist, reactivist, or preactivist. What he urges is \textit{interactivist} planning: Interactive planning attempts to prevent, not merely prepare for, threats, and to create, not merely exploit, opportunities. Interactivists have no desire to revisit the past, and are unwilling to settle for the
present or for what the future might bring of itself. Interactivists want to design and create a desirable future for themselves and their communities. Interactive planning is participatory, coordinated, integrated, and continuous. It is also strategic, considering a wide array of possible scenarios and planning strategies to meet goals in the face of various contingencies. It involves all the stakeholders in articulating and choosing among possible goals (visions).  

Burt Nanus was among the first to collect evidence to support the theory that leaders are unique in articulating and championing a compelling vision. This vision, if "attractive, worthwhile, and widely shared," will be a "powerful engine driving an organization toward excellence and long-range success."  

Before building a vision, he suggests exploring the environment of change surrounding the organization; this includes considering trends of change and building alternative possible scenarios. Any potential visions may be evaluated for viability and robustness against the context of the various alternative possible scenarios. Nanus' approach to visioning is analytical, and is described as a solitary endeavor, although it is certainly adaptable to group process.

The Fifth Discipline contains one of the best essays written to date on the transformative and motivating properties of a powerful vision.  

Senge's focus, however, is revealed in his subtitle: "the art and practice of the learning organization." If groups actively monitor trends of change, consider possible futures, and articulate preferable futures as guiding visions, the result is a dynamic organizational culture which supports flexible thinking and creativity.
Robert Jungk, a founding father of preferred futures workshops, worked with special interest groups, political action groups, and communities, facilitating their visioning of preferable futures. His book *Future Workshops* guides the reader through the process and offers examples from the workshops he organized. This approach consciously rocks back and forth between the intuitive-affective-creative and the practical-logical modes of thinking. The workshops guide participants in envisioning their ideals and also ask them to suggest actions to achieve that ideal. The workshop ends with people committing to take at least one positive step in the near-term future, with the group as a whole committing to meet again to check on progress. Warren Ziegler uses a similar approach in working with communities.

Boulding, in conjunction with Ziegler, designed the "Imaging the Future as a World Without Weapons" workshops for use by peace activists. Particularly notable about their approach is its deliberate use of the term "fantasy." Participants in these workshops do not envision an ideal future; they fantasy it. The shift in terminology reminds people that the ideal is not practical, and that they must reserve their time in the workshop to focus on the ideal. In many ways, this workshop acts as a technique for personal value clarification about the future. As Boulding was Polak's translator and editor, she would no doubt agree with him that,

Awareness of ideal values is the first step in the conscious creation of images of the future and therefore in the conscious creation of culture.
The "World Without Weapons" workshop approach, more than any of the others, asks participants to make explicit their assumptions concerning the human spirit and transcendence, and incorporate those into the future they fantasy.

Table 1. Examples of Futures Image Research

<table>
<thead>
<tr>
<th>IMAGE ANALYSIS</th>
<th>Level of Analysis</th>
<th>Approach</th>
<th>Image Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLAK</td>
<td>culture</td>
<td>historical analysis</td>
<td>preferable</td>
</tr>
<tr>
<td>FUNARO &amp; RINER</td>
<td>culture</td>
<td>invention</td>
<td>possible</td>
</tr>
<tr>
<td>ACKOFF</td>
<td>organization</td>
<td>system analysis &amp; design</td>
<td>possible &amp; preferable</td>
</tr>
<tr>
<td>NANUS</td>
<td>organization</td>
<td>research &amp; inspiration</td>
<td>possible &amp; preferable</td>
</tr>
<tr>
<td>SENGE</td>
<td>organization</td>
<td>participation, culture building</td>
<td>possible &amp; preferable</td>
</tr>
<tr>
<td>JUNGK</td>
<td>communities</td>
<td>interlinked intuition &amp; logic</td>
<td>preferable</td>
</tr>
<tr>
<td>BOULDING &amp; ZIEGLER</td>
<td>individuals</td>
<td>guided fantasy</td>
<td>preferable</td>
</tr>
</tbody>
</table>

The table above demonstrates the range of participatory futures imaging available to the interested. The human scale ranges from entire cultures and new species to organizations and communities, to the individual. Most involve either the possible or the preferable. Evaluating probability requires observation and data collection and so is not amenable to participatory workshops, although it is certainly amenable to participatory research. The means to image alternative futures and envision ideal futures is continuously being refined. The
section that follows suggests a further refinement based on the historical research of the Annales school.

**Braudel: The Image of the Past as a Benchmark**

Any intuited, imagined, or invented image of the future should strive for depth of detail and complexity of structure, for it attempts to describe an as-yet-unachieved reality. Believing that reality requires only inspiration or faith; building it requires a more immediate sense of its texture and livability. Polak analyzed macro-historical images using a fairly coarse substantive screen, although he does discuss examples of specific images representative of their cultural milieu: Plato’s *Republic*, the Jewish Covenant, More’s *Utopia*, Marx’s *Manifesto*, and others. For the most part, however, he worked at a higher level of analysis, describing the cultural meta-image, the overarching image of the future that both emerges from and contributes to individually created images.

Explicitly and self-consciously drafting an image of a preferred future requires a template, a benchmark that suggests not only a possible form for a complete image of the future, but also criteria to judge quality. The present balances on the fulcrum point between the lever of the past and the upswing of the potential future; looking to portraits of the past to find our benchmark for portraying a preferred future seems appropriate.

The historical perspective of Fernand Braudel offers a detailed, complex template for divising images of the future. In *The Mediterranean and the Mediterranean World in the Age of Philip II*, Braudel introduced two innovations
The first is the layering of time. His work acknowledges the many paces of time operating in different spheres of reality: 1) the time of micro-history, instant, immediate, the pace of people in action; 2) conjunctures, the time of economies, political institutions, social structures, cultures, and civilizations; and finally, 3) la longue durée, the millenial pace of biological, geophysical, and climatic time. Images of possible futures must also acknowledge these temporal layers, understanding that change and innovation will move at different rates through all the layers of objective reality, meeting with greater inertia in some spheres than in others. The future will contain some remnants of the past.

In Structures of Everyday Life (Civilization and Capitalism, 15th-18th Century, vol. I), Braudel exhaustively details the infrastructures and daily features of historical life. This catalogue of the material trappings and movement of goods and resources through an era vividly evokes the life of the ordinary person. In avoiding with disdain the history of single individuals and great events, Braudel has given us a history closer to the mass of individuals.

As a benchmark, Braudel’s work has one critical flaw. Although he is aware that material objects bear cultural significations, he does not attempt to identify or analyze those signs. Stuart Clark has characterized Braudel’s writing as “relentlessly descriptive and taxonomic.” To aid image creation, semiology, signification, and culture must join the merely descriptive. Melding the cultural sensitivity of Polak with the relentless description of Braudel produces the sort
of template for images of the future which features a complex layering of temporal, environmental, material and cultural characteristics.

Boulding has already contributed to creation of just such a benchmark. Like Braudel, she explicitly notes the various temporal rhythms that resonate through the layers of objective reality. Her workshop designs require that participants complete a "relentlessly taxonomic" worksheet listing social structures and material infrastructures, describing the forms and functions of each in their preferred future.

Funaro and Riner provide much the same experience in guiding participants to create possible future cultures. Their "relentlessly taxonomic" guide to creating a believable culture is the index of anthropological studies in English. This five-page outline mentions surely every social, religious, political, economic, physical, and semiotic structure with which people contend. Participants must address as many of these aspects of cultural reality as they can in the time allotted for creating their future culture.

Borrowing Braudel's structure creates a tension, an incipient contradiction, between the reason for that structure and the reason for enhancing people's skills in creating images of the future.

...when I think of the individual, I am always inclined to see him imprisoned within a destiny in which he himself has little hand, fixed in a landscape in which the infinite perspectives of the long term stretch into the distance both behind him and before. ...the long run always wins in the end. 23

Creating images of preferred futures inherently affirms the efficacy, if not of the individual, then of individuals working together; image creation affirms agency
over structure. Chapter Three will address the competing claims of structuralism and agency. But in brief, a mediated perspective will retain the tension between individual agency and social structures, a balanced tension created of the dynamic between the two that offers in its balance a perspective from which to consider the future.

ALTERNATIVE FUTURES AND INFINITIES OF VISION

This chapter introduced the image of the future and its relationship to the creation of culture and the unfolding of history. Polak’s original focus was on the image of the future as the image of a preferred, ideal future (hereafter more often referred to as the vision). In addition, his analysis highlighted the role of the image of the future in motivating the millenial sweep of cultural change and the viability of entire societies.

More recent work on images of the future expanded the concept considerably. It now includes possible, probable, and preferable images of the future, or alternative scenarios and visions. A variety of techniques to imagine possible futures or envision preferable futures have emerged; these range from highly technical computer simulation and modelling to participatory workshops devised for community planning and personal value clarification.

Polak’s main concern centered on the paucity of positive visions in modern Western culture. The primary flaw in his work stems from his basic research assumption that images are created by elites. It is his own version of
the Great Man approach to history: only special people are visionary. The watershed in image research in the last two decades has been the emphasis on active research, and the use of deliberate, participatory image creation to critique the present, build community commitment, and create leadership.

Recent research also suggests that imaging alternative possible futures underpins vision creation by offering a wider critique of the present and a deeper field of change available for the vision to encompass. The following chapters link the critical, inspirational, and community enhancing aspects of participatory futures creation with creative leadership.
NOTES


23. Braudel quoted in Clark, 186.
FROM UTOPIA TO IDEOLOGY AND BACK AGAIN

Images of the future arise, motivate action, and dissolve back into the myth pool of moving human consciousness. Polak traces this life cycle within the worldview of civilizations; Bennis and Senge suggest techniques for synthesizing and renewing vision at the organizational level; Jungk and Ziegler design workshops which enable communities and individuals to fantasize their own images of positive futures. Images of the future provide a tidy means to organize normative beliefs and values and project them symbolically.

If those images motivate widespread social action, then they do so either within institutionalized political structures, or in opposition to them. Positive images of the future, visions, either legitimate existing authority and governance structures, or they challenge and critique them. Rather than take the perspective that images fall into this dyadic pattern of use, the next few pages will suggest that positive images of the future move through a life cycle that transforms them from utopias to ideologies and back again.

This life cycle is described in four phases. The first phase continues the argument, begun in Chapter Two, that positive images of potential futures are social constructions of as yet unachieved realities, and integral to the social construction of communities. The second discusses their place in motivating action. In the third phase, the utopian aspect of the positive image has mutated
into ideology, and constrains thinking. Finally, the last phase initiates renewal and revision of the positive image of the future via critique and creativity.

**IMAGINATION AND MYTH**

We create ourselves and our world. Individuals create themselves in symbolic interaction with the people around them, constituting their unique identities in the sum of the messages exchanged. Together, people work to create and maintain a sense of belonging to place and to community. Both the past and the present exist as social constructions of reality; they are negotiated by the people who wish to live in them or in reference to them.

This act of construction must mediate between will and condition: individuals exert their own wills over reality and negotiate the joint exertion of community will, but do so in the face of external constraints. Both the natural and the synthetic environments generate these constraints. Furthermore, the symbols and structures of past acts of construction never entirely disappear. These structures which people move beyond linger in a sea change and the skeletal forms remaining build upon those yet further back. This coral reef of outmoded symbols and structures presents yet other obstacles to new acts of social construction.

Castoriadis labels this consensual world the 'social imaginary,' the world as a creation of the society concerned.

This element [of the social imaginary], which endows the functionality of each institutional system with its specific orientation, which
overdetermines the choice and connections of symbolic networks, which creates for each historical period its own singular way of living, seeing and making its own existence, its world and its relations to it, support of the articulations and distinctions of what matters and of what does not, origin of the augmented being...is nothing other than the imaginary of the society...concerned. 1

His view celebrates the potential of human diversity, and rejects the traditional ontology of determinacy, "For what is given in and by history is not a determinate sequence of the determined, but the emergence of radical alterity, immanent creation, non-trivial novelty." 2 The non-trivial novelty, the creativity, springs from the infinite variety of humanity, the infinitely various ways in which it is possible for people to be and to do. This indeterminate range of possibilities produces a social uncertainty principle which flouts the certainties of determinism.

A central goal in the social construction of reality is to create something "bigger than both of us." People have a need for belonging, which the creation of community satisfies.

...all communities larger than primordial villages of face-to-face contact (and perhaps even these) are imagined. Communities are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined. 3

People also have needs for achievement and recognition, but wish to minimize their risks in the attempt. Both these needs are addressed in devising a social reality for their community that incorporates a noble task or a transcendent goal.

If nation-states are widely conceded to be 'new' and 'historical,' the nations to which they give political expression always loom out of an immemorial past, and, still more important, glide into a limitless future. It is the magic of nationalism to turn chance into destiny. 4

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In envisioning positive images of potential futures, people engage in the social construction of a yet unachieved reality which lends meaning and grace to their achieved realities. The image created offers a single symbol for the creatively interwoven goals, norms, and values of the community; it gives people something to work toward, a benchmark for community and personal achievement. The community vision creates value for individual members and turns chance into destiny: it pulls people towards the future.

**RATIONALE FOR ACTION**

Because vision offers people the opportunity to create meaning and transcend the boundaries of the present, it motivates action. Because it problematizes both the present, and the past used to legitimate that present, it motivates transformative action. The vision critiques the present, and in so doing provides the context for revolution.

While ideology tends to integrate the social order by closing the gap between the present and the past, utopia tends to subvert the social order by creating a gap, by projecting a possible future of what present society could be. ...The interplay of ideology and utopia is the interplay of two contrary tendencies of the social imaginary. One of these tendencies reaches backwards, constructing a past by means of images and representations which serve to integrate the present. The other tendency reaches forwards, creating a possible future which would
stand in a critical relation to the present and which would show us what we potentially are.\(^5\)

In this space created by the sense of potential implicit in the vision, we can reconstruct our communities and ourselves to some form more nearly approximating our ideal aspirations.

Structural-functionalists would argue that no independent 'we' exists to indulge in all this symbol generation and image creation, much less the creative, transformative restructuring of communities. Individuals are swept along by social processes and their conscious and intended actions exert no control over those processes nor contribute any more effect than do their unintended actions. Furthermore, the great majority of people lack sufficient awareness of the implicit and explicit structures around them, and the consequences of their own actions, to play such a transformative role.

Luckily, not every social analyst has such a low sense of efficacy. Giddens counters with the view that says, basically, people ARE TOO 'knowledgeable agents' and 'skillful actors.' They can not only act purposefully and reflectively, but also provide rationale and interpretations for their actions. Gidden does not discard structural-functionalism, he merely discounts it to provide some balance. In fact, he posits an interactive relationship between human agency and social structures: social structures are both constituted by
human agency, and yet at the same time are the very *medium* of this constitution.  

This assumption allots individual actors more scope for action than functionalists concede, but constrains them more than interpretive sociologists would like to admit.  

Giddens does qualify his support of agency by noting that the self-consciousness of people as actors is bounded by any unacknowledged conditions precursor to their actions, and any unintended consequences of their actions. Nonetheless, creative, constructive action to realize a positive image of the future is possible from this perspective.

**CONSTRAINT**

Habermas points out the practice of legitimation misdirects attention; it focusses our concerns elsewhere so that we are never prompted to question the problems of the present.

The public realm, set up for effective legitimation, has above all the function of directing attention to topical areas -- that is, of pushing other themes, problems, and arguments below the threshold of attention and, thereby, withholding them from opinion formation.  

A very effective means to redirect public attention from the problems of the present is to engage people's attention with the hope of the future. Vision used
as ideology asks for our docility today, in exchange for freedom in a better future tomorrow.

How does the transformation occur?
Initially the vision motivates action by inspiration, and generates both excitement and energy as people organize and plan to achieve the vision. As progress occurs, old members need to be re-motivated, new members join, and the conditions change leading to some conflict with the original vision. So the community as a whole exerts control to keep the project on track by re-inscribing the vision in the social structure. After several reinscriptions, the vision reifies into ideology.

The diffusion of conviction beyond the founding members of a group readily gives way to rationalization and justification. Ideology becomes an argumentative device, a simplifying schema, an 'ism,' which persuades the members of a group that they are right to think as they do. Ideology acquires an inertia which is intolerant of novelty and resistant to change.8

The vision may even be realized, but once reified it locks into the community structure and becomes another constraint to critical, creative social action.

Initially, the vision was itself transformative, critical, and revolutionary, casting light on what had previously
been shadowed behind the legitimate field of social and political discourse. Bourdieu explains that the seeming rebellion of various heterodoxies opposing the legitimating orthodoxy of society beguiles us into believing we are conscious and critical of the structures around us. Those heterodoxies actually represent sanctioned rebellion; what the political structure wants undisgressed is hidden by misdirection, redirection, and denial.

This field of the undisgressed can also be thought of as everything people take for granted, the assumptions of daily life. Bourdieu argues that in stable societies where people's understanding of what surrounds them is reasonably congruent to the objective reality surrounding them, the field of what they take for granted -- the assumed, the field of doxa -- is large. These are the issues, the problems, the topics that never emerge into public debate.

When a once vital vision has reified into ideology, it too becomes internalized and is taken for granted. Society may still harbor structures once fundamental to the vision goals, but the origins of those structures are lost as memory of the vision itself fades. The constraints of the vision's imperative remain, but genesis amnesia overtakes people with regard to the roots of those constraints. What eventually cracks the constraints and disturbs the doxa? Undeniable objective crisis, that raises cognitive dissonance with people's assumptions and calls the previously unquestionable into question.
CRITIQUE AND CREATIVITY

We live surrounded by the reified visions of the centuries. Cooptation is the first line of defense for the status quo and so every living vision must undergo continual revision for renewal's sake. That means challenge and revolution must also be continual, and the happy ever after ending foregone.

Discussing Nietzsche's concept of critical, or 'effective,' history, Foucault notes,

History becomes 'effective' to the degree that it introduces discontinuity into our very being... 'Effective' history deprives the self of the reassuring stability of life and nature, and it will not permit itself to be transported by a voiceless obstinacy toward a millenial ending. 10

An imperative of revisioning, he seems to be saying, is shattering the single into the many: dissipating the whole, making discontinuous the continuous.

The purpose of history, guided by genealogy, is not to discover the roots of our identity but to commit itself to its dissipation. It does not seek to define our unique threshold of emergence, the homeland to which metaphysicians promise a return; it seeks to make visible all of those discontinuities that cross us. 11

One way to break the constraints of the old vision is to consider alternatives. Loosing our imaginations to invent discontinuous possible futures enriches our ability to envision preferable futures: imaging difference heightens our potential for envisioning the ideal.

Habermas agrees, suggesting that ideological criticism begins with a "counterfactually projected reconstruction" of what social structures people might hypothetically design if they were given the opportunity to work together to determine their needs collectively. Communities should develop visions collectively; the revolutionary process of envisioning a preferable future and critiquing the present must be a participatory process. A vision which ignores
some voices will oppress even before it reifies. Castoriadis sees participation as critical to developing universal autonomy as well:

Praxis is a type of action which involves taking others into account and regarding them as autonomous beings capable of developing their own autonomy. The revolutionary project builds upon the creativity and autonomous aim of praxis. It is, in essence, the project of a radical transformation of society with a view to the autonomy of all, "the reorganization and reorientation of society by the autonomous action of people." 12

People acquire autonomy through self-conscious reflection. Taking others into account when practicing vision empowers them to question themselves, to critique social structures, and to image new realities. People learn best by doing; visioning creates autonomy.

The practice of social criticism through vision is emancipatory. It dares the imagination, challenges assumptions, and declares its independence from traditions. Visioning is not for the nervous. Problematizing the present through vision erases the security that springs from the taken-for-granted.

...the will to knowledge...ceaselessly multiplies the risks, creates dangers in every area; it breaks down illusory defences; it dissolves the unity of the subject; it releases those elements of itself that are devoted to its subversion and destruction. 13

What is subverted and destroyed in Foucault's perspective are the structures of dominance hidden in our language, our habits, our manners, mores and traditions. Imaging alternative futures and envisioning preferred futures act also to create dangers and break down defences. Participatory imaging of alternative futures engages the community as a whole in dissociating the structures of reality, and reassociating them into the possibilities of new realities.
What would a social reality look like if constructed to legitimate the endless search for structures of dominance and thus to legitimate endless subversion, revolution, and revisioning? It would be anarchic, playful, experimental, flexible, free, and scary as hell. As our degrees of freedom and potential for creative action multiply, so do our risks. We trade the security of objective stability to gain autonomy; autonomous individuals must create their own security as well as their own values and vision. Which brings us full circle: joining others in the social construction of a vision engenders a secure community which celebrates autonomy and creativity.

**Figure 8. New vision as critique.**

**VISION PRAXIS**

In elaborating the concept "image of the future," Chapter Two suggested that exploring possible futures and evaluating probable futures enable people to envision preferable futures with greater breadth and depth. Furthermore, disseminating those self-consciously created images could potentially revitalize Western culture. This chapter has argued that exploring possible futures and envisioning preferred futures problematize the present (and, to some extent, the past), providing a tool for the critique of structures of dominance which limit action in the present.
Following Castoriadis, this chapter also affirms the ideal of participatory imaging and visioning: involve everyone when creating images of preferred futures as a means to personal autonomy of action for all. The succeeding chapters will suggest that the agenda of personal autonomy, vision creation, and vision dissemination basically defines leadership. Creating autonomous, critical, visionary citizens means creating leaders.
NOTES


2. Castoriadis, 256, as quoted in Thompson, 23.


8. Thompson, 187.


11. Foucault, 162.


13. Foucault, 163.
CHAPTER FOUR
LEADERS AS VOICE AND ILLUMINATION OF VISION

FROM POWER TO VISION

Societies are stratified politically; power distribution varies in society as does wealth. Approximately ten to fifteen percent of the people within a country are actively engaged in politics; this includes proximate decision makers, influentials, and activists.¹ These people are political elites, elites not in the sense of being granted or having taken power, but in the sense of being outliers on a standard curve describing degree of political activity. Most other members of a society are merely interested spectators of the political game who at best participate in elections, or at worst totally eschew participation.

This working definition of political elites, taken from Putnam, includes more actors than elected or annointed political decision-makers. It also includes bureaucrats, who more and more in national and local governments make working policy, yet are rarely answerable to a constituency. Corporate executives, union leaders, and many other people influencing the allocation of resources -- capital, natural, or human -- in the business community are also political elites, as they frequently influence government decision-makers. Finally, the definition also includes community opinion leaders and leaders of active communities-of-interest, who often manage to agitate their way to influence at least on specific issues.
But are these political elites leaders? When thinking about what it is that leaders actually do, I think back on experiences with small groups which required a leader. The selection process was often unspoken; at some point everyone simply exchanged glances, and then zeroed in on the candidate. Having been in my turn the candidate, I wondered what invisible brand identified me to the group as an appropriate choice.

In *Politics as Leadership*, Robert Tucker offers an insight into the process: relative outspokenness often separates possible leaders from group members. Leaders are not merely people who envision the group situation and group problems accurately and articulate them sensibly; they are those people that the group *perceives* to do so -- as opposed to the unheard analyst, the voice crying in the wilderness (i.e., academics).

A shift in political analysis of elites occurred in the last half-century. Where researchers once struggled to identify power holders, describe their attributes, and discern their motivations, more recent research struggles to articulate what leaders do and how they lead. This chapter begins by reviewing that stylistic shift in political science from studies of political elites, focussed on power, to leadership studies, focussed on creative change. The second section describes the literature on leadership and vision emerging from management and business science literature. The final section suggests that leadership, vision, and creativity in concert provide the most viable response to the complexity and chaos of our possible futures.
PREVIOUS STUDIES IN POLITICAL ELITES AND LEADERSHIP

Defining Leadership by Power

With roots in the writing of Machiavelli and Marx, the study of political elites migrated to U.S. social science from Mosca and Pareto via Harold Lasswell and C. Wright Mills. This school of thought defined politics as power, and political elites as people who attain, maximize, and hoard power. In trying to discern why anyone would crave power, traditional elite studies developed a Newtonian, positivist fixation on description. Taking power as a defining variable, these studies would ask, "who has it? how did they get it? why did they want it? what did they do with it?" As if the elephant were surrounded by blind men with good group process skills, who felt that sharing their efforts to name all the parts of the thing would finally build them a picture of the thing itself.

This perspective assumes that the roles and functions of political elites are static rather than dynamic. That is, political elites exist in every society as an over-class, whether capitalist or socialist: revolution does not eradicate an elite class. Embedded in the concept of political elites are notions of hierarchy; assumptions that power and status are linked to resources; that elites control top-down decision structures; that they dominate rather than respond to other classes; and that the leadership roles remain within the small pool of political elites.
Elite studies draw some of their arguments from Marxian analysis, and so are pluralist, class-based, and offer analyses in institutional rather than individual terms. The "Great Man" perspective on social change also entangles leadership studies. Individual leadership studies are contrasted to class-based elite studies. Individual leadership studies counter the notion of inherited power with the notion of in-born genius. Individual leadership studies assume that "great men" actually change the tides of history, rather than merely being swept along by them.

Elite studies, on the other hand, assume society and the sweeping forces of social change dominate any actions individuals might take. Power is an illusion of the present; in historical terms the forces of social evolution overwhelm any individual initiative. The individuals composing the class of elites may change, but the class itself will remain.

The tension between elite studies and individual leadership studies is the archetypal tension between individual influence and the determinism of social dynamics. Did T.E. Lawrence actually "[draw] these tides of men into [his] hands and [write his] will across the sky in stars," or was he merely flotsam tossed about by the grander tides of old empires ebbing?

Both these perspectives are too extreme. As descriptive research progressed on political elites, neutral middle ground emerged, exemplified by the role-based definition which introduced this chapter. Categorizing elites by level of political activity reformulated the research question and broadened the
field of research. Using this definition, people can be in the thick of the political arena and thus be political elites, yet command little power.

A role-based definition allowed more scope to consider movement across status classes, whether of political power, economic power, or reputational power (expertise). It also provided space to consider citizen initiative and grassroots leadership. As the conceptual definition expanded, more creative research considered not only the question of the origin of leadership across classes, but also the question of how leadership worked.

What, exactly, does it mean to lead?

**Leadership as Change Creation**

Having been one of the power-based theorists for at least half of his career, in 1978 James MacGregor Burns published *Leadership* and charted a new course based on the notion of transformation. This work unites the roles of leaders and followers such that the relationship encompasses teaching and modification of each other's goals, as well as purposive transformation of socially constructed reality.

I define leadership as leaders inducing followers to act for certain goals that represent the values and motivations -- the wants and needs, the aspirations and expectations -- of both leaders and followers.

Much of the best work on how people lead or follow has its roots in this reperception of political elites, great men, and leadership.

The introduction raised the issue of political activity versus leadership.

Many political elites, in Putnam's sense of political activitists, are not in fact
leaders, in Tucker's sense of problem definers, most of the time. Most political elites are merely managers.

In a very early study, Bellows (Creative Leadership, 1959) distinguished between static conditions, wherein behaviors and actions are routine, and dynamic conditions, characterized by the existence of an unsatisfied need, whether biological or social. Bellows suggested that leadership exists only under dynamic conditions; static conditions require only administration or management of the status quo. He focussed on leadership potential, on the quality leadership has of 'coming into being.' When a crisis arises, managers may become leaders, and then return, once a status quo has been reached, to being managers.

In Politics as Leadership, Tucker eschews the power model of politics in favor of a model centering on leadership. Like Bellows, he sees leadership as emerging out of crises. In fact, it is defined by problem diagnosis: leadership begins with the creative definition or redefinition of an unsolved problem which allows its solution.

He defines leadership as a three-part process: "diagnosing the situation authoritatively, devising a course of action designed to resolve or alleviate the problem, and mobilizing the political community's support for the leaders' definition of the situation and their prescribed policy response." Tucker supports this triadic conceptualization with case studies.
Leaders' abilities to perform these three tasks meet external constraints -- political, economic, and sociological -- and internal, or psychological, constraints -- family history, upbringing, and formative experiences. Working within these limitations, leaders must somehow weld constituencies together into working groups, resolving conflicting goals and interests for the sake of their community's future. Thus, while being responsive to individuals or interest groups, leaders must also tolerate widely varying needs, and negotiate and compromise among them.

In addition to asking what leaders do, political research also asks how they do it. Paige has identified a clustering of modes in which leadership activities occur. In the power mode, leaders act through inherited or invested authority, or by reason of control of vast capital, natural, or human resources. In the task, instrumental, or achievement mode, leaders act through a specific competence or skill to solve a particular community problem. In the affective or affiliative mode, leaders enhance community relations and community identity by providing symbolic gestures and emotionally satisfying behaviors. These categories not only outline leadership styles, they also outline the foundations of legitimation for most leaders.

In another sense, these three modes are also the media through which leaders act after having creatively defined or redefined a problem. In the end, it is this creative potential inherent in leadership that Paige spotlights. He suggests that "leadership may come to be defined as a creative art in which
questions of creativity, medium, and design will receive...[greater] attention." In fact, Burns, Bellows, Tucker, and Paige equate leadership with creativity by defining true leaders as those who re-define or re-formulate a problem in order to diagnose a solution. That is the definition of creativity: the formulation of a specific problem in an initially ill-defined problem domain, or as advancing a novel and appropriate solution to an extant problem, or both.8

NEW PERSPECTIVES FROM BUSINESS AND MANAGEMENT

Management vs. Leadership

In Leaders, Bennis and Nanus draw an even clearer distinction between management and leadership. They characterize leadership as management through vision. It is the creation of a dream which creates in turn an agenda for action: management through the communication and definition of a compelling alternate reality. Articulating an image of a preferred future, leaders "invite others into the lifeworld of their vision."

In their view, leadership requires innovation coupled to purpose where management is merely efficient routine.

By focussing attention on a vision, the leader operates on the emotional and spiritual resources of the organization, on its values, commitment, and aspirations. The manager, by contrast, operates on the physical resources of the organization, on its capital, human skills, raw materials, and technology.9

A leader builds team spirit; a manager keeps the team organized, on time, and supplied with working resources. A manager maintains a system in effective
functioning order relative to its working assumptions; a leader transforms the system’s working assumptions.

After interviewing ninety U.S. executives, Bennis and Nanus arrive at a definition which parallels Tucker’s definition, but is specifically image-based. Leaders,

1) create a new and compelling vision capable of bringing the work force to a new place;
2) develop commitment for the new vision; and
3) institutionalize the vision.

Leaders spot problems or dissatisfactions people have with the picture of the present. Rather than simply coping with the flaws one by one, leaders create the potential to transform the whole picture by offering a vision of what the picture could become.

This transformation must touch the heart of the community as a whole. It does so by speaking to widely held ideals, values, and hopes. It also offers individuals a chance to transform themselves in acting with others to create the vision. Finally, to keep a vision alive leaders also create structures within the organization to communicate, critique, and re-create the vision.

Vision-based leadership not only energizes community activities, it allows communities to deconstruct internal hierarchies and decentralize authority. With the overall vision acting as a general guide to priorities and decision-making, workers can manage themselves. This perspective on leadership lies behind
the trend towards "horizontal management" sweeping the U.S. business community. Businesses are "downsizing" by cutting middle tiers of management, and delegating more responsibility to the people working the floor, the assembly lines, and the front counters. Defining leadership in terms of shared vision expands the opportunities for even more leadership to emerge.

**Leaders Illuminating Vision**

Illuminating in this use means embellishing, enlarging, emphasizing, and detailing. Leaders do not necessarily create visions out of thin air; they often recognize and articulate a vision that has existed, inchoate, in the community consciousness. But they clarify it, condense it, and communicate it so that it speaks to the heart.

An image of the future, whether preferred or merely possible, is a social construction of as yet unachieved reality. The vision is a tool for critiquing the achieved socially constructed reality that is our present. Visions problematize the present, challenging our acceptance of what is. Through vision, leaders enable people to see a possible reconstruction of themselves.

Visions create communities that are actively engaged in creating value for their members, who enhance their self-esteem in working for a larger cause. Visionary leadership also empowers people to vision for themselves. It does so by modelling the way, encouraging visioning, and applauding commitment to change. What starts out as a vision creates a meta-vision, a jointly created community culture which supports visioning as a productive, creative project.

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and invites challenge and change. Management practices based in visionary leadership are extraordinary in their critical implications.

VISION: THE ART AND SCIENCE OF LEADERSHIP

Leaders create and communicate visions idiosyncratically. Some may offer only a catchphrase or a sketch, though brief, that sums up aspirations effectively. Others may devise multi-page plans -- yet even these will have a core idea that may be quickly expressed. Visionary leaders share the evocative succinctness of the epigrammatist with the passion to plan and build of the engineer.

Visioning relies on both the arts and the sciences for feedstock. Like art, it requires intuition, creativity, and discipline. Like science, it requires logic, creativity, and discipline. What it has in common with both is a discipline of perspective, which once mastered is internalized and becomes a clear conduit for creativity. The perspective is a commitment to challenge the present, to celebrate change, and to plan for achievement. The chapter which follows elaborates a broad-based approach to thinking about the future that provides this perspective in both theory and practice.

The Imperative for Vision as Art

Why must leadership be creative? Because the two most significant characteristics of the present are complexity and chaos.
In order to create a preferred future from an indifferent present, leaders must be able to imagine alternatives and discontinuities -- another defining characteristic of creativity. But complex challenges do not necessarily require complex responses to keep progress towards the vision on track.

Designing strategies, designing contingency, and fall-back positions are all part of a creative design process. Information and logic set the framework. Creative design offers the possibilities. Information and logic assess the possibilities.

In the future, instead of striving to be right at high cost, it will be more appropriate to be flexible and plural at a lower cost. If you cannot accurately predict the future then you must flexibly be prepared to deal with various possible futures.

In fact, organizations that institutionalize rigid, programmed responses to roadblocks and setbacks often fail. Contingency planning in support of vision means designing your whole organization or community for flexibility and adaptability -- it means designing for survival.

In practice, this means making alternative images of the future vision's handmaids. As the eternal present, with its infinite changes, rushes through a community, the community needs to re-evaluate the vision and the strategies chosen to achieve it continuously in the context of continuous change. Scenarios depicting possible alternative futures allow people to consider contingencies and trade-offs across many aspects of reality, testing their vision and its accompanying plan under a variety of assumptions.
...The primary utility of generating alternative plausible futures is that contemplated action decisions can be tested against these different future contexts to determine under what conditions these projected decisions would appear to be appropriate and to alert the decision-maker to future contexts in which these choices might be disastrous. Thus decision-making becomes a dynamic process, in which the unfolding future prompts a continuing re-examination of available options and their probable consequences.¹⁵

Visionary leadership creates structures for vision critique and renewal. The previous chapter cautioned against the power of old visions to paralyze creative thinking as circumstances change and new crises emerge. Linking the "what if...?" habit to visioning assures that as innovations arise, the aging vision will be challenged by potential futures.

Is this sort of leadership possible? Yes. The three chapters which follow outline a theoretical framework to educate people in these modes of observation, analysis, critique, imagination, fantasy, and planning; offer exercises with which to practice the perspective; and give several examples of people working together to create the heart of visionary leadership in their own communities. History would have us believe that only those born to visionary leadership achieve it.

[Louis Madelin on Napoleon] He would deal with three or four alternatives at the same time and endeavor to conjure up every possible eventuality -- preferably the worst. This foresight, the fruit of meditation, generally enabled him to be ready for any setback; nothing ever took him by surprise...His vision...was capable of both breadth and depth. Perhaps the most astonishing characteristic of his intellect was the combination of idealism and realism which enabled him to face the most exalted visions at the same time as the most insignificant realities. And, indeed, he was in a sense visionary, a dreamer of dreams.¹⁶
While Napoleon was certainly an extraordinary individual, many of these characteristics which Madelin lauds are merely modes of thinking. As such, they constitute a teachable skill.

**People as Vision's Medium**

If visionary leadership is an art, then people are its medium. Leadership is in part a performance art, the crafting and delivery of evocative symbols conveying an image of a preferred future. But it is also a participatory art: leaders and followers interact, they are each other's necessary and sufficient conditions. Through the vision, leaders forge groups of individuals into teams, communities, and nations.

...political leadership itself is a creative art in which the basic materials are human and in which the scale varies from individuals to vast populations.17

This is what balletmasters aim for with the corps de ballet, what basketball coaches aim for with their teams, and what Tito was aiming for in Yugoslavia. His vision did not greatly outlive him -- the image remained, but the passion and belief which he invested in that vision were gone which fueled it.

Which points to the next question. How do leaders use vision as a tool to create communities of individuals? Lots of people have visions -- some very specific. What makes it work when all that's said is, "I have a dream....!" and yet a whole nation is moved?

But, above all, the glow comes from management's availability, informality, energy, and hustle -- and the clarity of (and excitement associated with) the competitive vision, philosophy, or core values.18

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What makes it work is, to be crass, sales: contact with people, excitement about the vision, demonstrated belief in the vision, perceptable confidence in the goals and the ability to achieve them. Leaders do not necessarily have unlimited confidence in themselves, but they must have unlimited confidence in their vision, and they must communicate that.

Leaders must be passionate about their visions. They generate the glow that lights the path to the future.

The Sherif’s rebellion had been unsatisfactory for the last few months (standing still, which, with an irregular war, was the prelude to disaster): and my suspicion was that its lack was leadership: not intellect, nor judgment, nor political wisdom, but the flame of enthusiasm, that would set the desert on fire.

Sheer, bloody-minded enthusiasm marks a leader; they are stubborn about achieving what they have envisioned. Lawrence found the leader for whom he was searching when he met Prince Feisal. The vision that arose from that meeting was summed up by the simple "it is far from Damascus," offered in response to a polite question about the surroundings. The image of Damascus reclaimed from the Turks provided a symbol which restructured the Arab peninsula.

Looking for Illuminators of Vision

Leaders do emerge in response to crises. They emerge in times of war, in times of natural disaster, in times of social disorder and transition, and every day all around us as well. Leadership can be found at every level of human interaction, and at every age.
Leadership begins earlier, operates more widely, takes more forms, pervades more sectors of society, and lasts longer in the lives of most persons than has been generally recognized.  

Envisioning a better future for the human race means envisioning a future in which everyone acknowledges their own potential for leadership, and is provided with the basic skills to exceed that potential. The following chapters suggest a foundation for disseminating leadership skills.
NOTES


7. Paige, 71.


17. Paige, 71.


19. Lawrence, 68.

**CHAPTER FIVE**

*DEFINING FUTURES FLUENCY*

**THINKING, INTUITING, AND IMAGINING THE FUTURE**

Dealing imaginatively and effectively with the future is critical -- but it is seldom easy. Futurists, decision-makers, and planners have developed a wide range of techniques to deal with the future more effectively. These approaches blend rigor and logic with imagination. Imagination is by necessity a foundation of futures research: **there are no future facts**.

What information we do have about the future comes from our records of the past, our observations of the present, and our imaginative ability to ask, "what if"? At base, these are the three key components of futures thinking.

Looking at the past, we can identify cycles of events: seasons, sunspot activities, El Nino/La Nina events, elections, coronations, couturier’s hemline lengths. We can study "wild card" events: watersheds in history that have restructured political, economic, or social systems. What analogous situations exist in the present, or might occur in the next millennium?

Today’s sophisticated data-gathering and processing systems allow us to compile observations of our world with astonishing speed and precision. This greatly enhances our ability to spot historical cycles, to identify and monitor trends of change, and to look for trends in the making. As a species, we are immensely adaptive and innovative -- and our innovations open myriad doors of opportunity while at the same time closing doors on past habits and behaviors.
Keeping an eye on inventions and technological innovations, value shifts, even fashions and fads allows us to spot emerging issues in the present that might initiate changes in the future.

We have enhanced not only our ability to observe and record the changing patterns of the world around us, but also our ability to analyze those patterns. Economists, market researchers, systems analysts, survey researchers, historians, and futurists, among others, all have techniques to extrapolate what possible outcomes might be for observed patterns of change. Whether quantitatively or qualitatively derived, we refer to these expressions of possible outcomes as scenarios. A scenario may be as simply expressed as the top line on a graph of economic growth, or as elaborately fleshed out as a science-fiction novel. But at base, it is an attempt to suggest what a possible future might be -- given certain assumptions.

Scenarios of possible futures are one category of answers to the question, "what if"? Scenario-writing, as a discipline, has its own set of rules, chief of which is internal consistency. Achieving this requires that imagination be harnessed to logical rigor: the flight of fancy launched by asking "what if?" must follow a plausible path. Scenarios combine our fund of observations about the past and the present, our hypotheses about the laws of nature and society, and our creative imperative to expand our mental horizons.

But another category of answers exists for the question, "what if?" These answers come from our hearts. What if anything were possible? What would
We want for the future? Creating an image of our preferred future is visioning. When a vision is created with conscious understanding of the possibilities with which it must contend, it can prove a powerful tool for strategic planning and personal motivation.

It is also critical for negotiation: everyone makes decisions based on vision, on their idea of a preferred future, even if that vision is never consciously articulated. While we cannot retrieve facts from the future, we can collect information on what the people around us think will happen in the future, and what they want to happen. Those opinions underlie individual and group choices and actions.

This chapter introduces the concept of futures fluency: proficiency and delight in creative, critical, and constructive uses of rigorously imaginative speculation. Its five cornerstone activities are 1) looking for, and monitoring, change; 2) critiquing implications; 3) imagining difference; 4) envisioning ideals; and 5) planning achievement. When practiced as a continuously rising spiral of data-gathering, analysis, synthesis, and imagination, they comprise futures fluency.

Two assumptions bear emphasis:

1. The future is uncertain. There is no single, certain forecast for ourselves, our organizations, communities, or nations, or for the planet as a whole. While we would like to eliminate this uncertainty, we must work to live with it effectively and creatively. Understanding trends and
scenarios gives us a sense of the patterns of opportunities and threats, and enhances our potential effectiveness and creativity.

2. While the future is uncertain and much of it is beyond our control, we can control many aspects of it. We choose our future: we create it by what we do or fail to do. Visions and strategies linked to a clear sense of trends and scenarios make us better able to shape the future we prefer.

ELEMENTS OF FUTURES FLUENCY

The sections which follow give context, examples, and approaches for each of the five elements of futures fluency. Five futures research techniques underpin these five elements. The following paragraphs briefly introduce each technique and its use in the practice of futures fluency.

*Emerging issues analysis*, also known as environmental scanning, is the search for and detection of changes before they impact public consciousness. Emerging issues analysis maximizes the opportunity to identify and monitor coming change.

*Impact analysis*, practiced widely by planners as part of environmental and social impact studies, refers to a family of techniques used to identify and estimate the extent of the effects of change on people and the environment. Impact analysis lets us consider and critique the effects of change.
Incasting, developed primarily by James Dator, is the deductive forecasting of alternative possible futures. Incasting hones our ability to image different possible future states for changing systems, whether environmental, economic, political, social, or technological.

Visioning is an imaginative, idealistic and normative process which aids people in explicitly articulating their preferred future. It opens up a creative space free from constraints and the need to solve problems, in which we can envision achieving our ideals. The approach presented relies greatly on the seminal work of Robert Jungk.\(^2\)

Backcasting, also known as "Apollo forecasting" or "creating future histories," bridges the gap between the events in a possible future -- usually a preferred future -- and the extended present. It is a critical first step in specifying goals and milestones for use in planning and achieving an articulated vision. The approach presented emerges primarily from previous work by Warren Ziegler.\(^3\)

**Looking for, and Monitoring, Change**

Being futures fluent means being actively interested in change. Most people are merely aware of change -- and often disgruntled about it. Futures fluency requires a perspective which celebrates change. Not uncritically; change can erect barricades to opportunities and often

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Figure 9. *Looking for Change*
destroys much of what we value in our traditions. But it also creates wholly new opportunities and new networks of social relations. Whether negative or positive, change challenges us to learn, adapt, create, grow, and reconsider and redefine ourselves. Recognizing and reflecting on change and its implications allows us to critique not only external realities but also our own internal landscapes.

The rhythms and paces of reality are many. Braudel began his history of the Mediterranean by looking at the rhythms of events in geological time. Slightly faster paced are climatological cycles like the ice age-and-interval cycle: we are now close to the end of an interval -- "close" being "within a thousand years."

Rhythms in the planet are also linked to rhythms in the solar system. A prime example is the eleven-year sunspot cycle, critical to humanity ever since we domesticated food crops, as it disrupts accustomed weather patterns. The sunspot cycle is even more critical to the information age, as heightened sunspot activity interferes with broadcast transmissions.

Shifting perspective from massive systems with monumental inertia to smaller, more reactive systems like single separate species, the pace of the rhythms we observe quickens. The shorter cycles and more frenetic rhythms of systems such as plant and animal populations, the economy, women's fashions, and our individual bodies produce a greater amount of observable data in smaller time intervals. This aids analysis, although it does not
necessarily improve our ability to forecast events along these cycles with precision.

All of these ongoing rhythms are the baseline data for the first element of futures fluency: identifying and monitoring change. In order to notice changes occurring, you must first know how things used to be. Thus the beginning of futures fluency is a wide-ranging interest in historical patterns. Identifying change requires monitoring four forms of change: cycles, trends, emerging issues, and wild card events. Each varies in shape, pace, and magnitude of change. Examples are presented in Table 2.

The American Heritage Dictionary defines a cycle as "1. A time interval in which a characteristic, esp. a regularly repeated, event or sequence of events occurs." One of the earliest understandings of the future emerges from seasonal cycles. But data exist now on a wide variety of cycles: astronomic, climatic, political, social, and economic. Cycles have unique signatures in terms of shape (wave pattern), pace at which they complete (periodicity), and magnitude of effects. Perturbations in these characteristics hallmark change occurring in a cycle. If winter in the temperate zone is longer, that is a perturbation in the seasonal cycle which might cause a perturbation in the ice age-and-interval cycle.

El Nino/La Nino events (a cycle often referred to as the "El Nino-Southern Oscillation") occur about twice a decade, and their strongest immediate effects are hemispheric in magnitude: the Pacific Basin and Rim.
<table>
<thead>
<tr>
<th>IDENTIFY/MONITOR</th>
<th>SHAPE</th>
<th>EXAMPLES</th>
<th>PACE</th>
<th>MAGNITUDE</th>
<th>LOCATION OF DATA (timeline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cycles</td>
<td>![cycles graph]</td>
<td>ice ages, rise &amp; fall of empires, sunspots, El Nino/La Nina, seasons</td>
<td>geologic, centuries, decades, months</td>
<td>global, hemispheric, astronomical, hemispheric, continental</td>
<td>from prehistory, history, present</td>
</tr>
<tr>
<td>trends</td>
<td>![trends graph]</td>
<td>global warming, transport speed, %age of women employed</td>
<td>centuries, accelerating, decades</td>
<td>global, expanding, varies by site</td>
<td>prehistory, history, present</td>
</tr>
<tr>
<td>emerging issues</td>
<td>![emerging issues graph]</td>
<td>60's: environmentalism, 70's: personal computer use, 80's: virtual reality</td>
<td>accelerating</td>
<td>expanding</td>
<td>present</td>
</tr>
</tbody>
</table>
We have been intensively gathering data on this cycle since the 1960's. In the decades to come new high-technology observation systems will supply real-time oceanographic and atmospheric data to monitor its pattern. In an intensified effort to understand this cycle, researchers are backtracking to interpret ever-earlier anecdotal and historical data. The more we hone our understanding of this cycle, the better we will be at identifying changes to it. These changes could in turn identify other perturbations among the world's systems.

**Trends**, defined generally as "general inclinations or tendencies," are in analytical usage directions of change in one variable over time. Trend analysis monitors changes in chosen variables from the past into the present, focussing on the cumulative tendency of the change over and above any seasonal cycles or statistical "noise" generated by unique events. In addition, trend extrapolation -- mathematically modelling the continuation of a trend past our last current data point out into the future -- allows us to speculate on the extremes of change possible for the variable in question. Observing trends requires collecting quantifiable data: it must be possible to operationalize a phenomenon before monitoring its trend. Trend analysis is the foundation for baseline information on change.

Trends occur in several basic "families": 1) things stay the same; 2) things increase; 3) things increase and then level out or decrease; 4) things decrease; and 5) things decrease and then level out or increase. Economists develop sophisticated, complex arrangements of algorithms which direct
computers to manipulate data such that charts portraying one or another of these results emerge from printers. For the sake of imaging alternative possible futures, magic markers and graph paper work just as well.

Identifying and monitoring trends of change requires us to investigate the current and past states of any phenomenon whose possible futures we wish to consider. Not forecast; none of the varieties of trend extrapolation can "predict the future." But all of them can augment how well and widely we question patterns of change:

What will be the consequences if a given trend continues? if it plateaus or accelerates? What forces contribute to the trend, and how might those forces change? Can we influence this trend, and if so, how?

Trend analysis links our ability to observe change with our ability to plan it.

In order to plan intended change we must have room to respond to unintended change. The further into the future we look, the greater the uncertainty -- but the greater the possibilities for anticipatory action. Thus spotting nascent forces of change when their effects are yet small is critical. The technique which best enables a 50-year stare into the future is emerging issues analysis.

**Emerging issues** are nascent trends: trends that very few people have yet recognized as such. With each example of an emerging issue, Table 2 identifies the decade in which the change was emerging, but had not yet attracted widespread public attention. Rachel Carson and Lester Brown sounded an academic alarm regarding the environment in the late fifties.
Environmentalism was a watchword on the pages of Ramparts and Mother Jones in the sixties. But it did not reach the pages of Time and Newsweek, and America’s living rooms, until the second anniversary of Earth Day in April 1989. In contrast, personal computer use and virtual reality took only a decade each to emerge onto newsprint.

Emerging issues analysis assumes first of all that change is rooted in the innovative and the extraordinary. Extraordinary in the statistical sense: outliers produce change -- geniuses, visionaries, and lunatics in science, engineering, the arts, politics, philosophy or religion. And outliers are the first to spot change, to feel the shifts in the frequencies with which society or the environment resonates. The precursors of change may thus be searched out among fringe groups, in esoteric literature, within marginalized populations. The process of reviewing a wide variety of specialized or esoteric sources to sift out the spores of change is also sometimes called environmental scanning. The insight which identifies an emerging issue may come either at the prompting of a single item, or as an intuitive recognition of a pattern of events or references spread across many outlier groups.

Wild card events are system breaks: sudden, disjunctive changes whose causes are several interlinked variables which produce no obvious change until a threshold of some kind is met. They are system watersheds, after which disequilibrium reigns until the system reorganizes and establishes a new equilibrium. The Berlin Wall is a perfect example of a wild card event; the
economies of the two Germanies are still in the throes of reorganizing to establish equilibrium across the newly formed larger system.

Wild card events are very easy to recognize after the fact: their pace, or speed of impact, is usually immediate. Their magnitude usually depends on the reach of the system in which they occur. Forecasting wildcard events is a conjuring trick based on intuition and good imagination: all the data is located within the forecaster's image of a possible future. Computer models of interacting trend lines can suggest possible wildcard events if the results are sufficiently counterintuitive. However, computer models offer output in systemic terms, where wild card events are characterized by specificity: a particular [person, country, geological feature, microbe] does something unexpected. Wild card events are useful in identifying change because they prompt close observation of trends and cycles that might support their occurrence.

Identifying and monitoring change involves collecting and analyzing data related to cycles, trends, emerging issues, and possible wild card events. Does anything exist unchanging? No. Tectonic plates shift; mountains move; stone erodes. Seasonal cycles may change, and with them the global climate: El Nino events could perturb North American winters and accelerate the onset of glaciation. Even cycles may not be classified as "unchanging change," because they may alter in pace or magnitude: within a futures fluent perspective, wild cards may crop up anywhere.
Critiquing Implications

Finding and keeping an eye on change as it occurs around us is not sufficient for futures fluency. Critical to the task of inventing a better future is evaluating change. What effects cascade from ongoing change? What impacts do those effects have on our day-to-day life? Who has been newly advantaged or disadvantaged by the advent of change? What trade-offs might we face as a result of change?

In order to critique the implications of change, we must first distinguish between unintended and intended change. The distinction rests on two concepts: intervention and responsibility. Unintended change is often described as "what happens if people take no action to intervene." But this characterization is both imprecise and incomplete. It is imprecise because people are always in action, and those actions continuously intervene in the fabric of reality. It is incomplete because lack of intention implies lack of planning and lack of responsibility: a more complete description of unintended change is "what happens 1) when people take no action to intervene, or 2) when people act without considering consequences and assuming responsibility." Unintended change is the combination of natural processes and those actions we take without thinking. Intended change is the product of
conscious planning which assumes responsibilities for human interventions and their consequences.

Second, we must distinguish between effects and impacts. "Effects" loosely encompasses all the linked changes that change itself causes: mapping the effects of change in essence looks not just at the result of the cue ball striking the racked balls, but at the subsequent results of the balls in motion as they rebound off the table walls and each other. "Impacts" loosely encompasses how all the players involved feel about the effects of the cue ball striking the racked balls. The "impacts" of change are our evaluations of all the effects of change -- and thus vary from person to person.

As an example of these two distinctions, consider personal transportation. Increases in car ownership in the United States have outstripped increases in population. As a consequence, it takes longer to get to work, longer to find a place to park, and more money to pay for parking; air pollution has increased, car graveyards litter the land, and acres of discarded tires melt in perpetual smolder. These are all primary effects of the increase in the number of privately owned cars. Secondary effects include the creation of the fast-food/convenience store/gas station; gasoline credit cards; carphones, carfaxes, and trip computers; and "bedroom communities." To represent tertiary effects, I will offer only one example: the Exxon Valdez disaster.

Car ownership is perceived by most people to enhance personal mobility and independence. Individual automobile ownership in the U.S. is so ingrained
into the culture as to be considered a right: life, liberty, and happiness are pursued in a car. They are the intended effects of increased opportunities for personal car ownership. The primary, secondary, and tertiary effects offered as examples are unintended effects. People’s reactions to the car graveyards or gridlock are the social impacts of those effects.

**Exploring** and mapping the tiers of effects that cascade from change may focus on adding breadth or adding depth. That is, we can attempt to think through the primary, secondary, and tertiary effects of change, extending the series out to the limits of our patience or imagination, or we can attempt to think through how the sets of effects generated by several changes interact with each other. They are both amenable to structured brainstorming. The first is often accomplished via a futures technique called "futures wheels" and the second via a qualitative form of a "cross-impact matrix." Figures 11 and 12, and Table 3, offer examples of these methods; the next chapter provides a detailed process description of each.

**Assessing impacts** requires participation of the affected communities, which in an ideal world would mean either real or virtual town hall meetings. Public participation more often takes the shape of small focus groups, in-depth interviews of selected respondents, or surveys. In highly politicized situations, referenda convey the public’s evaluation of the effects of a possible change.
Figure 11. Example Futures Wheel

Figure 12. Example Futures Wheel: Impacts Categorized by Quadrant
Table 3. Qualitative Cross-Impact Matrix: Combining Trend Impacts

<table>
<thead>
<tr>
<th>Example Cross-Impact Matrix</th>
<th>TREES HAVE LEGAL STANDING</th>
<th>REMOTE SENSING FOR NATURAL RESOURCE POLICING</th>
<th>INDUSTRIAL CO2 EMISSIONS RISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TREES HAVE LEGAL STANDING</td>
<td>GREATER PRESERVATION OF FORESTS</td>
<td>MORE INVESTMENT IN FOREST MONITORING SYSTEMS</td>
<td>NET CO2 ADDITIONS TO ATMOSPHERE LOWERED</td>
</tr>
<tr>
<td>REMOTE SENSING FOR NATURAL RESOURCE POLICING</td>
<td>EASIER TO MONITOR FOREST RESERVES IN REMOTE AREAS</td>
<td>HEIGHTENED PROTECTION OF SCARCE RESOURCES, ENDANGERED SPECIES</td>
<td>INFRARED &amp; MASS SPECTROSCOPY MONITORING OF INDUSTRIAL EMISSIONS</td>
</tr>
<tr>
<td>INDUSTRIAL CO2 EMISSIONS RISE</td>
<td>TREES GROW LARGER, MORE PROLIFICALLY</td>
<td>POLITICAL CONCERN RE: ENVIRONMENTAL CHANGE FUNDS EXPANDED SPACE SENSING PROGRAM</td>
<td>GREENHOUSE EFFECT ENHANCED; CHANGED WEATHER PATTERNS; SEA LEVEL RISE</td>
</tr>
</tbody>
</table>

Lacking the time or resources for these approaches, a single individual can estimate social impacts by analogy, referring to previous research on similar situations.

It is no more possible to map completely the effects and impacts of change than it is to predict the future. Any critique of the implications of change must acknowledge its unknowable complexity. More, our attempts to observe and map the patterns of change distort those patterns: social scientists also endanger Schrodinger's cat.
Imagining Difference

Imagining a world, a reality, a version of ourselves radically different from what we experience now, and now, and now, and now, is the heart of futures fluency. Difference provides vivid details which are words and exclamations in the language of alternative futures; our knowledge and understanding of the structures and process of reality, and the social construction of reality, are the grammar of that language. Entre’s abound for those interested in learning the language of futures: the great works of anthropology; of social change; and of utopian and science fiction. All these open our eyes to alternatives, and teach the skill of consciously skewing our perceptions of reality.

Reading a wide variety of science fiction/fantasy short stories and novels helps jumpstart the ability to play constructively with alternative scenarios of the future. Familiarity with science fiction also helps sharpen one’s skill at spotting emerging issues, possible impacts of innovations, and patterns in trends of change. A gifted writer can make an alternative future and its inhabitants live for us. In conversations with those characters we can experience meaningful insights into our construction of the present and our thoughts about the future.
To explore images of possible alternative futures, we may choose among three basic methods which require successively greater investments of imagination on the part of the futures thinker. First, we can search for and document images of alternative futures existing and being created in culture; second, we can take images of the future sketched by someone else and elaborate on them; and third, we can create images of alternative futures from scratch. Table 4 summarizes these methods, suggesting possible uses of each, examples of the kind of images that result, and the basic research approach. For comparative purposes, the table also lists the two discriminatory activities of estimating probable scenarios and generating preferable scenarios (visioning).

The first paragraph of this chapter asserted that "there are no future facts." That is true, and thus futures research often seems a sadly constrained field to database aficionados. But we can gather data regarding the images of the future people hold in the present. A large sub-section of futures research pursues just this end. African villagers, ⁴ Columbian housewives, ⁵ Italian children, ⁶ Jamaican leaders ⁷ -- positivist studies surveying and collecting individuals' images of the future abound in the futures field. Another approach collects and analyzes forecasts of alternative futures developed by social change analysts, world process modellers, economists, political and cultural critiques, and the like. Analysts then cluster the scenarios into groups of similar stories, developing "families" of prospective futures.
<table>
<thead>
<tr>
<th>IMAGINING DIFFERENCE</th>
<th>USE (why?)</th>
<th>EXAMPLES (what?)</th>
<th>APPROACH (how?)</th>
<th>DEV’T TIME (how long?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>identify existent scenarios</td>
<td>map cultural topography of futures images; inventory images people are using to make current decisions</td>
<td>Second Coming, Second Global Depression, Second Balkan War, Star Trek</td>
<td>content analysis of media and speech</td>
<td>months</td>
</tr>
<tr>
<td>deduce scenario details</td>
<td>forecast alternative futures for specific items, groups, structures, etc.</td>
<td>alternative futures for: the Girl Scouts, the health industry books</td>
<td>incasting (deduction from broadly drawn scenarios)</td>
<td>hour</td>
</tr>
<tr>
<td>generate possible scenarios</td>
<td>widen our sense of the possible; identify range of threats and opportunities</td>
<td>worldwide sea level rise creates under-, over-sea culture; direct human-computer neural link engenders global cybernetic mind</td>
<td>plausibly combine possible effects of trends and emerging issues</td>
<td>day (given database of trends and emerging issues)</td>
</tr>
<tr>
<td>estimate probable scenarios</td>
<td>contingency planning: encourage opportunities, mitigate threats</td>
<td>monitor ocean temperatures, ice shelf calving, coastal inundation; monitor advances in neurophysiology, biochemistry, electronics</td>
<td>monitor trends supporting possible scenario; analyze statistical probabilities</td>
<td>months</td>
</tr>
<tr>
<td>evaluate/generate preferable scenarios</td>
<td>motivate people</td>
<td>U.S. Constitution &quot;I had a dream...&quot; Landing a man on the moon Macintosh, the people's computer</td>
<td>assess trade-offs and values across possible scenarios, or envision ideals</td>
<td>day/hour</td>
</tr>
</tbody>
</table>
Such **scenario identification** begins to map the topography of human thinking about the possible futures, and blaze some trails for others to follow. These approaches require logic, meticulous organization, an affinity for detail, and skill in pattern identification. The resulting scenarios provide data for more interpretive work on the role of images of the future in the economy or in politics, or the emergence of images of the future in culture or mass media. Comparisons among scenarios found in different age groups, gender roles, or cultures also yield interesting results. Yet another use for "found images" is **incasting**.

**Incasting** takes people on a comparative journey across several possible futures. It requires moderate and equal amounts of logic, imagination, and intuition, and is hampered by the idealistic and the normative. Incasting begins with the choice of four to six candidate scenarios describing possible alternative futures. These scenarios are the results either of identifying images of the future extant in a culture, as described above, or of intermixing the logical extensions of impacts and cross-impacts from specific emerging issues, described below.

From these general descriptions of a future, futures researchers may then logically deduce particulars, specific details: given a future in which nanotechnologies and bioengineering allow corporations to produce infinitely malleable mass-market consumer goods, what would chairs look like? What would 21st century chairs look like across an array of very different futures?
How would educational systems differ between a high-technology corporate future and a future characterized by increased spirituality and a focus on environmental stewardship? How would the concept of "tourism" differ across a green future, a corporate future, and a post-environmental disaster, post-global depression future? What familiar social institutions would cease to exist? What social institutions would people invent to suit the new context?

Incasting can also be structured to elicit a useful political critique: incasting possibilities for specific marginalized subpopulations -- women, children, the physically or mentally handicapped, the unemployed. At a more general level, merely identifying who in each scenario will find themselves economically or politically advantaged, and who disadvantaged, critiques the assumptions and structures of those scenarios.

Incasting directs the imagination to add details and enrich an already sketched image of an alternative future. Incasting is a good entre to scenario construction, as it is basically scenario construction with training wheels. Scenario construction may be as unstructured as a child's daydreaming, or as formally codified as the algorithms which comprise one of Forrester's global models. As used throughout this work, scenario construction refers to the systematic use of logic and imagination to create a plausible, internally consistent story that describes a possible alternative future, and offers some information as to its genesis.
The next chapter will review the details of the scenario construction process designed for this research. In brief, the basic ingredients are a handful of emerging events, a list of general societal characteristics, and a timeline. The emerging issues are used as engines of difference; the list of societal characteristics evoke a broad impact pattern; and the timeline places the pattern of the effects in relation to the present.

The effects and impacts of the emerging trends are elaborated via futures wheels and cross-impact matrices: imagine writing a narrative in which the contents of Figure 11 might plausibly be embedded. With this "seed narrative" available, the next step is incasting the future of the rest of reality: will the mundane remain the same, or will the emerging trends change it? In order to heighten the level of detail generated, it helps to have a components checklist. In this scenario of the future, what will be the form and function of government? the economy? the family? personal transport? goods distribution systems? educational and training systems? housing? myths and religions? vices? This components list ensures breadth of imagination.

The resulting impacts, changes, conditions, and characteristics are then positioned a plausible distance away from the present on a timeline. The resulting narrative focusses on describing this alternative future as if it were the narrator's present. The narrator may choose to explain in detail what events brought this future present about, or may simply point to the supporting historical trends and leave the rest to the reader's imagination. This exercise is
tantamount to creating a new culture from scratch, and as such challenges even the most accomplished synthesist: it requires wide-ranging familiarity with arts, humanities, and the natural and social sciences.

Once we have imagined difference, and stretched our abilities to limn the possible, we can start estimating the probable and evaluating the preferable. Sorting through widely divergent possibilities helps people identify what attracts them and what repels them in the arenas of change. Estimating probabilities lets them consider how likely they are to end up in a repellant future. Both serve as good warm-ups for visioning. Without this initial adventuring in the fields of the infinitely possible, people are likely to let the mundane constrain their visions.

**Envisioning Ideals**

The previous chapter on leadership made a strong case for the link between vision and extraordinary human achievement. Reaching our full potential requires goals that challenge us to exceed that potential. Unfortunately, in this most instrumental of ages, daydreaming is unfashionable. The education of the industrial era teaches us to keep our attention on the task at hand; the drive for upward mobility focusses our creativity on immediate problem-solving and practical matters of management.
The age of deconstruction awards more points to critiques than to castles in the
air.

Given these barriers, little wonder that people are uncomfortable with the
verbs "vision," "fantasize," "dream." If not for the cases cited in recent
management literature which underscore the utility of vision for motivating
exemplary performance, it would be difficult to convince professionals to
engage in visioning. Yet it is something humans do naturally, that in fact we
must be trained not to do. Reinstating visioning as a powerful creative tool is
simply re-balancing our internal environment: giving equal pride of place to
intuition and fantasy next to logic and calculation. Visioning requires them all.

**Visioning** is an exercise in structured idealism. It means wrenching our
"common sense"-ilities away from the practical to indulge in daydreaming and
wishlisting. It not only assumes that people can create the future, but also that
a sufficiently inspiring vision of a preferred future motivates people to action.
Most simply, it is an iterative brainstorming process, relying heavily on
imagination, ideals, and intuition.

To begin, we state a handful of general characteristics for a preferred
future: peace on earth, environmental stewardship, racial equality. These are
too general to be useful building blocks; they must be refined into more precise
statements.

Next, we perform an idealistic incasting on the staple components of
social reality: in our preferred future, what form will nation-states take?
government? what will community social structures be like? how will people be
educated? how will work be structured? how will goods be produced,
distributed, and consumed? The next step moves further into the realm of
fantasy, by asking what the components of an individual's everyday reality look
like: describe a typical day in this preferred future -- begin with waking up and
getting out of bed, being sure to describe the bed and the bedding.

This exercise has two primary goals: one, to create a richly descriptive
image of a preferred future; and two, to get beyond the imaginative constraints
of a purely practical, "yes, but..." mindset. Many people find it difficult to let go
of the problem-identifying and problem-solving perspectives that work ingrains
in all of us. Often the best bridge to the ideal is a string of complaints: most
people know what it is about the present they do NOT like. Consequently, the
psychologically natural opening exercise for visioning is a problem-listing or
"catharsis" stage, in which we list what we absolutely reject for our preferred
future.

The statement of positive components can begin with restating the
negatives as their opposites: if cultural intolerance is the hallmark of a negative
future, the delight in cultural diversity may be a major component for our
preferred future. Another way to shift to the positive is to identify our greatest
recent successes, either individually or organizationally. This has the added
benefit of reinforcing the belief that we can create change.
As Table 5 illustrates, individuals and groups may express their visions in many modes. A vision may be expressed as simply as a sentence: Henry V's, "No King of England unless King of France," or Kennedy's, "Within the next decade, the United States will land a man on the moon." These pocket visions, or vision icons, serve as snapshot reminders of the living reality of the long-term goal, keeping priorities clear and motivation high.

Ideally, the vision scenario -- the scenario of a preferred future -- offers a rich inventory of the vision's identifying characteristics. Chapter Two suggests using Braudel's approach to history as the exemplar: from daily manners, the niceties of table settings and other quotidian details, to the monumental, geologic differences that make that past scenario real for the participant in the present. Corporations, agencies, and organizations rarely have the luxury of investing the time necessary to elaborate a vision in great detail. Most examples of such extreme elaboration emerge from political utopianists -- although by far the best present-day example, and by far the most exhaustively discussed, augmented, and media-diverse vision of a preferred future is that of "Star Trek." The details of this vision are designed, deliberated, disputed, and delighted in by thousands of people all over the world daily via Internet, not to mention the video series, movies, animated cartoons, cartoon books, novels, short stories, technical manuals, and dictionaries of hypothetical alien languages. Every community should aspire to such richness of detail for its vision.
Table 5. Vision Components

<table>
<thead>
<tr>
<th>VISION COMPONENT</th>
<th>USE</th>
<th>EXAMPLES</th>
<th>SOURCE</th>
<th>DEV'T TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>icon/ logo/ slogan</td>
<td>catalyst/rallying cry</td>
<td><em>Fukoku Kyohei</em>¹, <em>Oregon Shines</em>², *To be the standard for public service in America.*³</td>
<td>individual: inspiration</td>
<td>voila</td>
</tr>
<tr>
<td>preferred scenario (the vision)</td>
<td>what we want to achieve</td>
<td>Make Western nations acknowledge Japan as an equal. Social and economic development of the State of Oregon. Quality local government.</td>
<td>individual: inspiration; group: facilitated process, delegated drafting</td>
<td>months, year(s)</td>
</tr>
<tr>
<td>mission</td>
<td>who we are, why we work, our values</td>
<td>...progressive public policy, superior public service, courteous public contact, ...and sound management (Pinellas Co.)</td>
<td>facilitated process, delegated drafting</td>
<td>weeks</td>
</tr>
<tr>
<td>plan</td>
<td>what we will do, when, how, and with whom</td>
<td>White papers, policies, programs; Oregon Shines (state vision/plan);</td>
<td>group process and individual initiative</td>
<td>weeks</td>
</tr>
</tbody>
</table>

¹ The rallying cry for the Meiji era: Rich country, strong army! This expressed a vision of Japan's future in which they equaled the West in economic and military strength.

² Oregon's state vision, which resulted from the Oregon 2020 project, and has resulted in the Oregon Benchmarks commission, as well as numerous participatory community visioning and planning projects.

³ Pinellas County, Florida: This vision statement and vision resulted as part of their efforts to institute total quality management throughout their county government; it has resulted in superb teamwork, performance, worker morale, and taxpayer savings.
"Oregon Shines" is Oregon's capsule phrase for its state vision. Oregon's vision serves as the hub about which its state strategic planning process turns. The vision begins by affirming that Oregon cherishes its traditions, human resources, and environmental riches, and pledges to preserve and enhance these state treasures. From there, it elaborates:

Well-located industrial land would be available and competitively priced...Power would be plentiful and affordable. Water would be clean and abundant. The work force would be well-educated and productive. Our communities would boast excellent, affordable housing, efficient services, good schools and minimal congestion. Our buildings, bridges and roads would be well maintained. Our communities, streets and highways would be uncongested. Both east and west of the Cascades, our natural environment would remain unspoiled and accessible, offering year-round outdoor recreation.\(^8\)

By itself, this is admirable, but something of a mom-and-apple-pie vision, akin to envisioning peace on earth. The trick is filling in the details to define what exactly they mean by "a well-educated work force" and "good schools."

The vision expands to offer those day-to-day details:

At the Portland International Airport, one would hear visitors and Oregonians conversing in international languages... [This] would result from investments begun in the late 1980s -- ...increased attention to basic skills, problem solving, and foreign languages in our grade schools...Quality would be the hallmark in all phases of Oregon life.\(^9\)

As the details of day-to-day life are added to the vision, they are carefully interwoven: in describing economic development which takes advantage of new industries and innovations and growing cultural diversity, the vision also discusses related vocational programs, retraining for older workers, and a new curriculum emphasis on cross-cultural sensitivity and foreign language training.
For each element of the vision, Oregon has stated a clear and measurable goal, with attendant strategies to reach that goal. These measurable goals, the Oregon Benchmarks, serve not only as the specific details of the vision, illuminating what the ideals mean in very concrete terms, but also as landmarks for planning, centering long-range strategies.

In the mission statement, the community committed to the vision articulates who they are and explains the source of their commitment to the vision: why is it a worthwhile act of creation for this particular group of people? How does it complement their definition of self? The Pinellas County Government mission statement reads in full:

Pinellas County Government is committed to progressive public policy, superior public service, courteous public contact, judicious exercise of authority and sound management of public resources, to meet the needs and concerns of our citizens today and tomorrow.

In order to excel within the framework of this self-definition, the Pinellas County Government declares, "We are working to be the standard for public service in America." This single sentence is their vision: it is the organizational best they wish to achieve, given the mission they have defined for themselves.

They elaborate the vision-mission link by articulating three criteria by which to judge strategies to achieve the vision:

To achieve this vision, we place the highest importance on:
- The Quality of our Service;
- Having our Customers Think Highly of us;
- A sense of Commitment and Pride among us.
Since July, 1991, this mission statement and vision have created an organizational culture within Pinellas County Government that is reflected in the enthusiasm, creativity, and energy of its employees. The Court Administrator of the Sixth Circuit Court was admiring the fine woodworking county construction staff were completing as part of renovating the courthouse. He asked the county employee why the work had not gone to an outside contractor. The employee told him that the county crew had bid against outside contractors, come in with a lower price, shorter time estimate, and higher technical specifications; he finished by adding, "we are, after all, all working to set the standard for public service in America."

With the vision and mission statement articulated, the plan then organizes the means the community has chosen to achieve the vision. Ideally, these are means that the community judges possible, productive, and appropriate in ethical or cultural terms. It also acts as the bridge between the practical present and the idealized future of the vision: it describes the timeline of achievements necessary to create the changes that build the vision. Planning achievement completes visioning, structures the revolution, calls the community to action, and reinforces the belief that what people imagine they can create -- so we should teach ourselves to imagine with skill, with care, with critical foresight, and with respect for diversity.
Planning Achievement

Imaging difference and visioning preferred futures are singularly sterile activities unless partnered by commitment to create. In fact, commitment to create is the litmus test of a vision: if it touches the heart enough to inspire action, it is a vision; if not, it is merely an entertainment. Visions can, however, be discouraging things to birth. A truly inspiring, transformational vision can seem dauntingly idealistic and romantic, completely beyond the reach of anyone’s grasp. Hence the need to plan achievement: futures fluency must include the skill to facilitate creating the future that the vision depicts.

As Table 6 illustrates, seven linked activities comprise planning achievement. Backcasting throws a hypothetical timeline backward from the vision to the present, anchoring future achievement of ideals in our current behavior. Strategizing suggests ways of coordinating community activities, resources, and allies to create the conditions and events that will in turn create the vision; goal-setting merely operationalizes those events and conditions in order to monitor progress. Identifying resources serves to inventory community strengths and allocate those strengths appropriately among the chosen strategies. Devising tactics highlights discrete actions required to make
### Table 6. Activities for Planning Achievement

<table>
<thead>
<tr>
<th>PLANNING ACHIEVEMENT: ACTIVITIES</th>
<th>USE (why?)</th>
<th>EXAMPLES (what?)</th>
<th>APPROACH (how?)</th>
<th>TIMESPAN (how long, how often?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACKCASTING</td>
<td>Anchors the distant ideal in the immediate real; what needs to happen</td>
<td>Development of environmentally friendly, sustainable tourism</td>
<td>&quot;Effect-and-cause&quot; chains; deduce necessary/sufficient precursors</td>
<td>From vision date to present: 10 to 30 years</td>
</tr>
<tr>
<td>BRAINSTORM STRATEGIES</td>
<td>Defines how we can make it happen</td>
<td>Encourage B&amp;B’s, small inns and eco-tours as strategy</td>
<td>Brainstorm; borrow strategies from analogous goals previously achieved</td>
<td>Rule of thumb: strategies 1/10th the length of the total timeline</td>
</tr>
<tr>
<td>SET GOALS</td>
<td>Defines what will serve to indicate progress: landmarks</td>
<td>tourists staying longer at smaller inns, requesting nature guides</td>
<td>Operationalize achievement measures for strategies</td>
<td>At posted increments parallel to strategies</td>
</tr>
<tr>
<td>IDENTIFY RESOURCES</td>
<td>Defines who we are, what we need to make it happen</td>
<td>Hawaii: lovely land, fragile resources, need tourism dollars</td>
<td>Inventory and brainstorm; solicit cooperation</td>
<td>Update per strategy</td>
</tr>
<tr>
<td>BRAINSTORM TACTICS</td>
<td>Defines which action steps comprise the larger strategies</td>
<td>Heighten room tax on large hotels; decrease at inns</td>
<td>Brainstorm; borrow tactics from analogous proven strategies</td>
<td>Rule of thumb: 1/10th the length of the strategy</td>
</tr>
<tr>
<td>COMMIT</td>
<td>Confirms our will to create the vision</td>
<td>Lobbying at capitol; legislative support</td>
<td>Written pledges to act, with action &amp; timeline specified</td>
<td>Day of vision session</td>
</tr>
<tr>
<td>MONITOR</td>
<td>Asks: Are we making it happen? Any adjustments necessary? Any +/− impacts from our changes?</td>
<td>Increase in small businesses; decrease in tourist busses; increase in impacts on local trails</td>
<td>Trend analysis; emerging issues analysis; impact assessment</td>
<td>Length of total timeline</td>
</tr>
</tbody>
</table>
strategies successful, and committing means pledging to implement a tactic. Monitoring change brings futures fluency full circle: in order to determine our rate of progress, spot the need for course corrections, and determine the impacts of our actions on our goals, ourselves, and our world, we observe trends and emerging issues, cycles and wild card events.

**Backcasting** is arguably the most difficult of these activities, either to do or to explain. It involves creating a future history, a timeline that explains what events needed to occur for the future under discussion to emerge from the present we currently inhabit. The simplest approach considers the emerging trends implied by the given scenario, imagines possible events related to those trends, and then attempts to impose a plausible chronological order on the events list.

A more rigorous approach asks, what logical precursors are required for each characteristic or artifact of a given scenario? And what logical precursors precede those initial precursors? In short, vision designers/scenario builders construct an "effect-and-cause" chain. Researchers often suggest five-year intervals between the events, the links of the chain, to allow for social inertia. In the cases of scientific achievements or technological artifacts, the links in the chain may be shorter.

Perhaps the best-known example of backcasting was the planning effort which designed the Apollo program -- hence the technique's other label, "Apollo forecasting." This approach allowed scientists and technicians to brainstorm a
logical list of what they would need to assemble, adapt, or invent in the way of techniques and technology to place a person on the moon. This example demonstrates the practicality of this futures activity: if the chain of precursor events is brought to within five or so years of the present, people can usually see a direct link to actions they could initiate within a week.

The next four activities are common to both formal and informal planning: devise strategies; set goals; inventory resources in terms of team members and their skills, allies, and material; and design tactics to meet goals. People may either create strategies from scratch, or copy and amend strategies from successes elsewhere. For example, say a community has envisioned establishing a neighborhood arts center for all ages. Strategies to accomplish this include soliciting donations of sites, or of funds for construction and activity supplies, or of in-kind contributions of labor and skills. Goals might include organizing volunteers to teach within six months; acquiring class materials and supplies within nine months; devising a minimal tuition schedule within nine months; and acquiring a temporary site within a year: first classes offered twelve months from the date of the vision workshop.

Inventoring resources can take many forms. Participants could list their own skills as related to these overall strategies. Salespeople might bend their persuasive power to solicit donations; real estate professionals, contractors, architects, and engineers might look for and review possible sites; neighborhood craftspeople, retired artisans and artists, and dedicated hobbyists
might serve as potential staff. In addition, participants would attempt to enlist other community residents in contributing to, as well as implementing, the vision. Finding additional champions heightens the momentum. The greater the personal participation enlisted, the easier it is to find sources of monetary and material support.

Finally, the strategies would be split up into their component tactics, or specific tasks around which task teams can be organized. The materials and supplies team could decide to 1) apply for a grant from the National Endowment for the Arts; 2) solicit national corporations for donations of equipment; 3) solicit local corporations for donations of supplies; or 4) start a neighborhood fund drive based on people "buying" a potter's wheel or TV camera which will boldly memorialize their donation with an engraved plaque. These activities bridge the ideal of the vision with the practical of the present; people who are problem-solvers glory in this phase of futures fluency.

Commitment is most commonly and concretely demonstrated every time public television embarks on fund-raising: call the community member, enlist their vocal support, suggest their fiscal support, persuade them to commit to writing a check when they receive the reminder in the mail. An effective vision planning process asks for commitment in the same way. Throughout the visioning process, participants rely on each other for verbal support for the ideas that comprise the vision. Near the end, the group as a whole asks its members for written pledges of commitment. These pledges specify what first
steps, what initial tasks, participants are willing to start within the week. Finally, participants set up a mechanism by which the group as a whole can check back with each other after a month to relay individual progress on goals.

**Monitoring progress** towards the vision involves both observing the direction of change, and assessing the impacts of change -- whether related to the vision actions or not -- such that the vision may be constantly revised and revitalized. Chapter Three illuminates the process by which visions reify, eventually shackling further creativity rather than nurturing it. The lesson of critique in that chapter suggests constant review of the vision and activities linked to and legitimated by it. This review includes monitoring change, critiquing impacts and implications, and continuously refreshing the vision. Thus the final component of futures fluency links back to the first in a continuously refreshed cycle of observation, implication, imagination, idealization, and realization.

**FUTURES FLUENCY: IMMERSION AS PRAXIS**

**The Widening Gyre**

The preceding pages introduced, defined, and offered examples of the five cornerstone activities of futures fluency: 1) **looking for, and monitoring**, change; 2) **critiquing implications**; 3) **imagining difference**; 4) **envisioning ideals**; and 5) **planning achievement**. Many researchers pursue each of these cornerstone activities for themselves alone, as independent fields of
study. Yet linked together they create an art at once powerfully critical and powerfully constructive.

Within each phase of activity, the fluent futures thinker maximizes diversity, combining and recombining elements of social science extrapolation, intuition, whimsy, and fantasy. As all the loose elements of observation, analysis, and imagination shift and fall and are viewed within this mental kaleidoscope, the fluent mind looks for and compares the varying trade-offs posed by each new pattern as it slides into place. Figure 2 offers a map of the movement from one activity to the next. It illustrates the iteration of critique between each phase.

We begin by standing in the present, on the foundation of the patterns of the past. We begin by looking for change, asking, "what is happening?" After identifying cycles, trends, innovations, and emerging issues, we ask ourselves, "what are the implications of these changes -- and for whom?" In the new conditions and environments created, who wins? who loses? Next, we imagine difference. Extending those changes and their effects out to absurd but
LOOKING for CHANGE
cycles
trends
innovations
emerging issues

CONSIDERING IMPLICATIONS
futures wheels
cross-impact matrices

IMAGINING DIFFERENCE
scenario identification
incasting
scenario construction
to considering implications

ENVISIONING IDEALS
vision icons
vision
mission
to considering implications

PLANNING ACHIEVEMENT
backcasting
ID allies, resources
ID goals (milestones)
brainstorm tactics
commit
to considering implications

MONITORING CHANGE
continuing data collection
on cycles
trends
innovations
emerging issues...

to considering implications

Figure 16. Dynamic Futures Fluency
interesting extremes, we ask, "what might happen as a result of these interacting forces of change?" And what are the implications of what’s possible for the future? Which possible future offers more in the realms of equity, justice, fairness? Which presents the fewest trade-offs between human productivity and environmental quality? Which offers the greatest opportunity for development of human potential?

All these initial exercises help us understand how changes intertwine to create different scenarios. They thus enhance our ability to envision our ideals very specifically. It is too easy to say, "we want a world at peace, a world in which people live and work in harmony with the environment, where every child has the right to affection, health, and education;" what, after all, would all that look like in practice? When you fill an ideal scenario with less than ideal people, who have fears and hatreds and petty irritations, irresponsibilities, and idiosyncrasies, what does it look like on a day-to-day basis? The richer our vision of a preferred future, the more it will touch our hearts -- the more it will seem real to us. When we ask, "what do we want to happen?" we must focus on the minutiae of individual’s lives, asking what this structure of our ideals will mean to different real people, how it will change their circumstances, and whom it will benefit, and whom harm.

It would be frustrating forever to build castles in the air, and never on the ground. With our vision richly expressed, we can ask, "how do we make things happen?" This leads us to plan and mobilizes us for action. But even at this
stage, we must consider the implications of the strategies and tactics designed to realize the vision. When acting to achieve our dreams, we become forces of change ourselves, and so must evaluate the possible effects and impacts of our actions.

Finally, after imagining, dreaming, and planning, we are eager to see results. In order to do so, we must complete our efforts by monitoring change, which is merely an update of our initial efforts in looking for change. Thus the last phase of futures fluency links back to the first, creating an infinite cycle of vision renewal.

Yet our actions between round one and round two mean we begin the second iteration slightly advanced from the present. We progressed in time and in experience: with this incremental increase in mastery of the skills involved comes an increase in the scope, in the breadth and depth of our imagination, ability to vision, and ability to plan achievement. Thus our cycle of futures fluency broadens as it rises.

**Futures Fluency and Strategic Planning: A Double Helix**

In the summer of 1987, as part of the U.S. A.I.D.-sponsored Asia-Pacific Development Planning Institute, I made a presentation on the various perspectives and techniques involved in futures studies. My audience was composed of government planners from a variety of Pacific Island nations, states, and territories. They asked me what the difference was between futures
research and planning. The best response I could think of at the time was an analogy to playing cards.

Assume you are with four or five mates in search of amusement, and you have a deck of cards. Futures studies aims to get people to discuss which games they might want to play, and can then try to inform players what the possibilities are in the hands they might be dealt, and how probable it is they will receive any one kind of hand (whether a particular hand is preferable or not depends upon which game a given player has chosen). Once you have the game chosen and the hands dealt, planners advise you on how best to play the hand. This also involves considering alternative possibilities, probabilities, and preferences, but in a more limited way.

The question is still a struggle. What is futures to planning, or planning to futures? Aren’t they the same thing? Why aren’t they the same thing?

Between the first floor of Porteus Hall (Urban and Regional Planning, University of Hawaii) and the sixth (Futures Studies, Political Science, University of Hawaii), these questions have been drowned in coffee, cola, and good brown ale, but keep surfacing. Many of the activities defined above as comprising futures fluency either are planning, outright, or are practiced also by planners. How do we tell ourselves apart? We know the difference when we see it, certainly -- why is it so difficult to define?

Perhaps because the two fields parallel each other so closely, separated only by a matter of degree, a shift in emphasis, a difference in attitude:
planners attempt to minimize difference and divergence, as they result in controversy and cost over-runs; futures researchers attempt to maximize difference and divergence, as they result in critique and creativity. How does that play out in practice?

First let's look at the forms of planning that most clearly resemble futures fluency: comprehensive planning and strategic planning. Comprehensive planning uses a systems approach that manages activities in three dimensions for defined conditions. That is, comprehensive planning assumes that in order to manage the forest, you must manage the watershed, the indigenous species, the soil quality: managing the trees means managing all the interlinked bits of their ecosystem as well. Comprehensive planning has little temporal dimension. It assumes that you wish to maintain conditions as they were at a defined moment in time. It is a snapshot.

Strategic planning, on the other hand, is the movie. Strategic planning takes a probabilistic approach that manages activities through time in the face of uncertainty and change. Just as a good movie includes a series of clear, well-composed stills, good strategic planning includes clear, well-composed comprehensive planning. This definition of planning parallels futures fluency by encompassing complexity, in the form of multiple systems, and chaos, in the form of uncertainty and change.

To manage the forest strategically, we must account for possible changes that might take place, and actively design preferable changes we want
to implement. For example, say we are managing 10,000 acres of old growth forest in the Pacific Northwest, currently classified as state lands. What changes might take place? Some introduced parasite might damage the trees; the state could re-classify it and sell it to a land developer; the state could sell the timber rights; the Nature Conservancy could buy it; some near-by long-dormant volcano could explode and cover huge tracts of it in mud and ash. Which of these changes could we monitor? Which could we mitigate, encourage, or constrain? Who would be our allies in those efforts, and where would we solicit support? Which outcome would we prefer -- or must we design another, one not mentioned? These questions resemble those listed above under "planning achievement." They are the questions asked by leaders faced with uncertainty, rather than the conditions maintained by managers entrusted with a system. Strategic planning, like futures fluency, is linked to leadership.

Strategic planning consists of six basic components: 1) program evaluation; 2) data-gathering; 3) describing several possible scenarios as well as the preferable scenario; 4) mission statement definition; 5) outlining strategies and goals; and 6) implementation. Like futures fluency, these activities are most effective linked together in a continuous process. As plans are realized and programs implemented, they undergo regularly scheduled evaluations, which re-engage the strategic planning process.
Like futures fluency, planning begins by looking around at the presently visible landscape. In the planning scheme outlined above, that includes the organization's internal landscape as well as what's happening outside it. The organization's internal landscape is mapped via the *program evaluation*. This defines the original conditions under which the organization or community was formed, reviews the past problem definition and the mandate that accompanied it, itemizes current activities, and inventories strengths and weaknesses. It is akin to beginning futures fluency by monitoring progress made towards an old vision. The external landscape is mapped by *gathering data* on the environment within which the organization or community exists. This parallels the "identify/monitor change" activity of futures fluency.

The next four steps in strategic planning map one-to-one onto futures fluency: exploring organizational possibilities via alternative scenarios of the organization's future; defining organizational preferences in a vision statement; affirming organizational purpose via a mission statement; prioritizing vision components as strategies and goals, and identifying resources, allies, strengths and weaknesses; implementing strategies by defining objectives and personal responsibilities of the participants to the vision; and commitment. What is missing is the conscious investment in critical evaluation at each stage.

What characterizes good strategic planning? First, it should be *ongoing*, a permanent organizational activity. Second, it is *information intensive*, with data searches focussed on external conditions and change. Third, good
strategic planning expands the planning timeline, considering the past, the present, and a range of possible futures for an organization or community. To achieve constructive outcomes, it is opportunity hungry, constantly working to identify allies, resources, and emerging activity niches for the community. Strategic planning works best when it melds the efforts of many people: it is participatory, involving stakeholders, clients, and allies at each stage. Finally, good strategic planning is future-focused, concentrating every participant’s efforts to achieve the group’s vision.

What are the requirements for successful strategic planning? If implemented in a hierarchical organization, the leaders must strongly support the process, encouraging risk-taking on the part of their subordinates. In order to encourage suggestions, ideas and creativity from all participants, organizers should design a process that is simple, open, and accessible. Participation is critical, and the process should encourage diverse input, listen rather than lecture, and acknowledge what it has heard. Successful strategic planning incorporates mediation and conflict resolution; it must heighten participants’ sensitivity to conflict and encourage negotiation to balance competing interests. As part of negotiation and creativity, it must encourage flexible thinking, particularly in the form of new problem definitions, and solutions which identify and adapt emerging possibilities. The final three requirements for successful strategic planning are community consensus on the vision, encouraging a
sense of personal responsibility for achieving the vision, and a commitment to continuously review progress and renew the vision.

These characteristics and requirements also fit futures fluency. To return briefly to the card analogy, where the two differ mostly is in the scope of the changes they consider and attempt to influence: planners attempt to monitor and influence the conditions internal to the game; futures researchers attempt to monitor total transformation of the game, the players, and the room itself into something entirely different, and entirely unlikely.

THE BENEFITS OF FUTURES FLUENCY

As a whole, the elements of futures fluency enable people to state their fears and articulate their hopes, to consider a wide range of possible changes and build alternative future scenarios based on those possibilities, to evaluate critically the opportunities and constraints offered by alternative futures, and finally to articulate their vision of a preferred future and develop strategies to achieve it. When combined, these activities enable us to exercise creativity, flexibility, and adaptiveness in the face of the future.

Researchers in creativity define it as, "the formulation of a specific problem in an initially ill-defined problem domain, or as advancing a novel and appropriate solution to an extant problem, or both." The cognitive mechanisms seen as crucial to creativity are: the association of two or more previously dissociated or even incompatible elements in the existing knowledge structure;
the forging of random associations; breaking existing perceptual and cognitive
sets; mental imaging; and the suspension of judgments. The activities of
futures fluency create conditions in which each of these cognitive mechanisms
may function -- and in fact require each of these cognitive mechanisms.

Envisioning the human future, the future of the species, the future of
value and meaning, the future of communities and governance, the future of
laughter, music, dance, art, and games, is the great creative act. It does not
require charisma; it does not require attainment of power; it does not require
discipline or a serious frame of mind; it requires only reflection. But it is greatly
aided by collaboration, and the next chapter discusses designs for participatory
futures fluency leading to vision and enhanced leadership.
NOTES


9. Ibid.


11. Ibid.
CHAPTER SIX
FROM FUTURES FLUENCY TO VISION

UNLEASHING COMMUNITY CREATIVITY/BUILDING LEADERSHIP

Recent research contends that at least seven different types of human intelligence exist;¹ four distinct modes of learning and problem solving;² and a minimum of sixteen different personality types.³ Over four billion people live on this planet. Multiply that base population by the number of modes in which people can approach the challenge of inventing the future and the resulting total signifies an enormous source of creativity and constructive capacity. For one individual, futures fluency is a valuable skill for personal planning and achievement. For communities, cultures, and humanity as a whole, it is a lever with which to move the world.

Most importantly, it is a teachable skill and therefore a transferable lever. This chapter describes the exercises used to facilitate futures fluency. While they may certainly be used by individuals working alone, the descriptions below assume a group of people working together. The case studies offered in the following chapter all involve organizations whose members chose to consider future possibles communally rather than individually. Thus the method presented takes the form of futures workshop design.

The five components of futures fluency -- identifying change, critiquing implications, imagining difference, envisioning ideals, and planning achievement -- form the backbone of futures workshops. Not every workshop
will explore all five components; futures workshops must be tuned to participants' needs. For example, facilitators may adjust exercises and their combinations to suit the varied interests found among undergraduates, businesses, and government agencies.

For introductory political science classes, students can spend fifteen minutes listing the characteristics of their preferred future, then separate into teams for incasting exercises across a range of possible alternative futures. Afterwards, they regroup and evaluate which of the possible alternatives they would prefer, based on their preferred future characteristics -- or suggest how they would combine characteristics from the possible alternatives.

Interest groups and businesses are usually interested in articulating a mission statement or vision, and developing strategies and programs to meet the goals the vision implies. This interest often arises during the course of a program evaluation or reassessment. The tasks of listing current problems, listing recent successes, and reversing problem statements to create vision statements, fit nicely with administrative perspectives, while simultaneously widening the range of issues explored.

Government agencies generally want both to plan for a wide range of contingencies and to establish some positive programs. Furthermore, such agencies often have extensive-data collection programs, and in a naive way may be attempting to monitor emerging issues. If that is the case, they have the input necessary to generate their own scenarios depicting possible futures.
They can then use these alternative scenarios to incast possible outcomes of critical issues or policies. Those possibilities may then be ranked for desirability in public hearings, or by task forces. The preferred future of the community as a whole may be aggregated by a series of such activities.

These three examples illustrate that futures exercises may be combined to suit varying goals. This chapter will describe basic elements with which to build futures workshops, focussing most closely on incasting, scenario building, and vision workshops. It begins by looking closely at two foundation skills, facilitated communication and applied creativity (or lateral thinking). While contributing to the success of any group process, these skills are critical for communal applications of futures fluency.

The next two sections describe the exercises unique to futures workshops, and three ways of combining those exercise to create workshops, respectively. In acquiring futures fluency, people within communities must have the opportunity to practice all five components: identifying change, critiquing implications, imaging difference, envisioning ideals, and planning achievement. Exercises suitable to each are briefly described. In order for communities and organizations to engage in image building and vision creation as teamwork, people must have the opportunity to participate with each other in those exercises. The workshops offered as design examples highlight incasting, scenario building, and visioning.
The final section of this chapter summarizes the process and its dynamics. It then relates the pedagogic goals of futures workshops to the possibilities of research output. It ends with a reminder of the links between these operational activities and the theoretical constructs of leadership, vision, and futures fluency offered previously.

FOUNDATIONS: COMMUNICATION AND CREATIVITY

Basic Skills: Facilitation/Recording

Formally facilitated meetings are almost commonplace. They have yet to subsume Robert's Rules of Order in legislatures or share-holders' meetings, but the day may not be far off. The classics in the field of facilitation, Delbecq, Van de Ven, and Gustafson's *Group Techniques for Program Planning*, and Doyle and Strauss' *How to Make Meetings Work*, are almost twenty years old. The latter work first set out the basic ingredients of facilitator, recorder, and group memory. Since then, the field of group process has grown with the inclusion of graphics facilitation, conflict resolution and negotiation processes, and lateral thinking techniques. What follows is an amalgam of techniques suggested by many of those sources as well as personal experience.

Facilitators are, first and foremost, traffic coordinators for communication. They make sure that the conversational space is shared fairly by all participants. Thus, a good facilitator also models active listening: listening to understand, not criticize; listening positively, not as an adversary; and asking open-ended
questions for clarification. Exhibiting a positive attitude and encouraging participation is also part of active listening: listening with your eyes as well as your ears, so you can spot the shyer participants and encourage them to offer their thoughts.

Facilitators serve to protect individual participants and their ideas from attack. They legitimate everyone's contributions to the workshop by ensuring that the recorder captures them on the wallnotes. They also keep the discussion on the path proposed by the agenda, and try to keep the group on schedule.

Recorders create the "group memory" on wallnotes: sheets of newsprint or butcher paper pinned to the wall. As each participant offers an idea, makes a suggestion, raises a question, or comments during brainstorming or discussion, the recorder notes what was said as accurately as possible. Not a verbatim account, but an abbreviated statement that correctly reflects the gist of the participant's contribution. It is critical that the recorder be skilled in active listening, and be able to write very clearly very quickly.

The facilitator helps the recorder by asking participants to suggest short phrases that summarize their ideas: the facilitator may even prompt this by suggesting shortened re-statements of comments. Facilitation and recording thus result in an orderly capture of people's ideas, in a way that everyone can follow during the course of the workshop. Ideas can be revisited, revised, expanded, or discarded.
Good facilitation begins prior to the workshop, with dissemination of the agenda in advance. As mentioned previously, during the first hour of the workshop the facilitator introduces herself and other members of the workshop facilitation team and asks participants to introduce themselves. Together, everyone reviews the agenda and, if necessary, revises it. At this point, good facilitators will ask participants what expectations they have for the meeting and its outcomes. The responses will then be recorded and posted as the first set of meeting wallnotes. In this way, expectations can be revisited during the course of the meeting as a check on participant satisfaction.

Finally, facilitators help participants establish the groundrules. Two categories of groundrules must be clearly defined: those the group creates, and those the exercises require. Thus, facilitators first ask participants to suggest effective groundrules that mesh with their expectations. Having participants create groundrules tailored to their expectations in essence creates a synthetic culture specific to their workshop. This synthetic culture, while temporary, is a common culture designed to encourage, support, and free creativity. The act of creating groundrules cracks some of the implicit mental constraints of organizational or community culture with which the group is initially hobbled.

Second, facilitators review the brainstorming and futures groundrules specific to the chosen exercises. These required groundrules reinforce the synthetic culture by demanding new ways of thinking and communicating.
Furthermore, they offer rewards for pathbreaking behavior and sanctions against backsliding into comfortable thinking habits -- e.g., critiquing without creating first.

Almost every group contains some obstreperous, cantankerous, rebellious, irreverent or in some other way difficult, people. It falls to the facilitator to smooth out these burrs in the fabric of discussion. Basically, facilitators do that by accepting, legitimizing, dealing with, or deferring. That is, they accept the comment or idea without agreeing or disagreeing, and legitimate it by making sure it gets entered onto the group memory. They then boomerang the comment, criticism, or question back to the group as a whole, asking all the participants if they want to deal with it immediately, or defer it until later.

The end result should be a workshop in which everyone felt they had a fair chance to air their thoughts, in which participants generated a lot of creative energy and produced a lot of interesting and useful ideas, and in which all of the ideas were captured on the group memory for later use. To summarize, facilitators begin the meeting with Outcomes, Agenda, Roles, and Rules (OARRs). Explicit outcomes provide clear focus and direction; agreement on the agenda gets everyone on board the process; establishing roles and basic rules provides controls for the process; all four together build group trust and confidence.

The matrix below offers four exercises which reinforce different group process and communications skills. While not actually necessary for a
successful futures workshop, they do provide good warm-ups for the futures 
exercises which follow. The first two are designed for groups of five to seven 
people; the last two assume the participants are working in pairs. Complete 
instructions are provided in Appendix A.

Table 7. Group Process Exercises

<table>
<thead>
<tr>
<th>EXERCISES: Communications Warm-up</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Weaving</td>
<td>15</td>
<td>Demonstrate importance of everyone's participation</td>
</tr>
<tr>
<td>Wrapping It Up</td>
<td>30</td>
<td>Demonstrate teamwork</td>
</tr>
<tr>
<td>Listening for Detail</td>
<td>15</td>
<td>Active listening</td>
</tr>
<tr>
<td>Recording Controversy</td>
<td>30</td>
<td>Neutral, accurate listening</td>
</tr>
</tbody>
</table>

The first exercise, Net Weaving, is a simple group process warm-up. 
Participants stand in a loose circle; the first person grabs one end of a ball of 
string, and tosses the ball across the circle. The second person takes hold of 
the string, and tosses the ball again, approximately across the circle. This 
continues until everyone is holding string, anchoring one outside point of the 
net. This provides the group with several possible metaphors for group 
process. First, the inside of the net creates more nodes at the intersections of 
the string than there are outside points; second, combining lines of 
communication creates a web to capture and support ideas; third, the loss of 
even one participant weakens the integrity of the net.

The second exercise, Wrapping It Up, asks the group for creative 
problem-solving as well as team skills. They are presented with an object,
tissue paper, a box, wrapping paper, and thin ribbon. They must wrap the
object in tissue paper, place it in the box, close the box, wrap it, and tie the
ribbon around it. Each person may only use one finger to help the group
accomplish this goal. This makes the group as a whole one hand. They must
create a plan to wrap the "present" and carefully coordinate their movements to
accomplish this goal.

For the third exercise, participants pair off. Each person first spends a
minute recalling a good memory: something beautiful they once experienced,
some happy moment. The assignment is then to elicit a complete description
from their partners of this good memory. Each person has the responsibility of
reporting their partner's memory back to the group as completely and
accurately as possible.

Thus rather than listening to criticize, argue, or score substantive points,
people practice listening to comprehend, absorb, elicit detail, and neutrally relay
the information. People learn to elicit more detail from their partners by asking
open-ended questions: what did it look like? smell like? sound like? how did
you feel? who was with you? In professional settings, many people fall into a
rather adversarial mode of listening; in this exercise, the story-teller and the
listener work together to flesh out a vivid description. This also jumpstarts the
imagination, and helps participants add detail to alternative futures and visions
in the futures exercises to follow.
The fourth exercise deliberately constructs partnerships from pairs of people in opposition. It requires more set-up work than the other exercises, as facilitators must distribute an initial survey eliciting people's opinions on controversial subjects -- abortion, gays in the military, Hawaiian sovereignty, gun control -- and assign people partners who disagree with them. The basic assignment for each pair is similar to that in Listening for Detail, if less pleasant. Each person must elicit a complete description of their partner's position and relay it accurately and neutrally to the group as a whole. Obviously, this could become explosive. But handled deftly, it is an excellent exercise for people to experience, and thus learn, active listening.

A complete survey of all the books now available on group process and facilitation would no doubt yield an exhaustive array of warm-up exercises. These four are offered as useful representatives from that array which have logical and stylistic connections to the futures exercises described below. Again, while not necessary, they support futures fluency by easing people into new patterns of thinking and working with others.

**Basic Skills: Brainstorming/Lateral Thinking**

We normally get our picture of the future by extending present trends and anticipating convergences where different things come together to produce a new effect. There are times when we need to get a richer view of the future and to seek possible discontinuities. For that we need creativity.\(^5\)

Why do we need the sort of group trust that good facilitation builds? Because creative thinking is risky. Good group process creates a temporary, synthetic culture which offers participants safety and security for risky thinking.
It also offers techniques to combine, overlay, transform, and develop individual products of creative thinking into community projects.

Unfortunately, a traditional, Western, industrial-oriented education irons most of the creative wrinkles out of our cerebra. Our educational systems are designed to produce prompt, polite, pragmatic, present-oriented, productive workers. We are rewarded for identifying problems, managing complex systems, critiquing the present state, but rarely praised for generating wild ideas or focussing on far horizons. One of the first techniques designed to help people generate ideas, wild or otherwise, is brainstorming. It is simple, easily taught, and fairly effective at generating ideas quickly.

Brainstorming has a very simple basic rule: don’t judge. Simply lob ideas out as they come to you. Let other people do the same. The facilitator’s primary job in a brainstorming session is to keep ideas flowing. This means acting as an enforcer of the groundrules that people agreed upon at the beginning of the meeting.

During brainstorming, the facilitator also politely but firmly squelches arguments, qualifications, and even requests for elaborations -- those may be requested later, when all the basic ideas have been recorded. It means reminding people to offer only the idea, not all the corollary examples (this slows down the flow of ideas, and limits other people’s opportunities by taking up airtime). Elaborations, examples, and even qualifications may be added during a clarification and evaluation session after brainstorming.
Edward de Bono, author of over forty books on the theory and practice of consciously applied creativity -- or what he calls "lateral thinking" -- thinks brainstorming overrated. It is, he critiques, a shotgun approach to idea generation, developed initially for use in advertising, which produces too high a percentage of crazy or unworkable ideas per session. Advertisers can find productive uses for seemingly unrelated but exciting concepts, but in most other venues greater focus in idea generation pays off more.

De Bono argues that our brains simply aren't designed to be creative in the first place. They are designed to absorb information and arrange it in patterns. Our brains thereafter attempt to fit all additional information into those established patterns and do so, unless extremely provoked. He thus suggests deliberately provoking the brain in order consciously to leapfrog those established patterns -- hence "lateral" thinking.

Lateral thinking is conceptualized as the necessary balance or complement to vertical thinking. Vertical thinking follows and reinforces established patterns; lateral thinking smashes across established patterns, transforming them and creating new patterns.

*With vertical thinking one concentrates and excludes what is irrelevant, with lateral thinking one welcomes chance intrusions.*

Vertical thinking is selection by exclusion. One works within a frame of reference and throws out what is not relevant. With lateral thinking one realizes that a pattern cannot be restructured from within itself but only as the result of some outside influence. So one welcomes outside influences for their provocative action. The more irrelevant such influences are the more chance there is of altering the established pattern. To look only for things that are relevant means perpetuating the current pattern.
Vertical thinking follows the most likely paths, lateral thinking explores the least likely.

Lateral thinking can be deliberately perverse. With lateral thinking one tries to look at the least obvious approaches rather than the most likely ones. It is the willingness to explore the least likely pathways that is important for often there can be no other reason for exploring such pathways. At the entrance to an unlikely pathway there is nothing to indicate that it is worth exploring and yet it may lead to something useful. With vertical thinking one moves ahead along the widest pathway which is pointing in the right direction.

This is precisely the sort of creative thinking futures fluency requires. As the previous chapter stressed, futures fluency starts with the assumption that the pattern of the future, whatever future emerges, will be vastly different from the pattern of the present. Our first task must therefore be to imagine difference. Futures fluency further assumes that exploring the least obvious possible future will prove more useful than fully describing the "most likely, most probable" future. In short, the requirements of futures fluency map neatly onto the characteristics of lateral thinking.

This becomes more evident when you compare De Bono's exercises to enhance lateral thinking with the workshop exercises to facilitate futures fluency. With provocation as his primary goal, De Bono invented a word, po, which he suggests using as a signifier to warn people they are about to hear a deliberate provocation: Po, in 2043 tourism will cease to exist. Listeners then ask themselves and each other, "tourism in what sense?" "Why will it cease to exist?" "What transformations will the industry, the customers, the destinations, or society undergo that might make that statement true?"
Po can be used as shown to unleash a provocative, seemingly nonsensical statement for group discussion. It may also be used to link a random word to a concept, goal, or product in order to elicit innovative idea associations: rapid transit po helium (I chose helium as an example by letting my dictionary fall open and blindly putting my index finger down on a word). What qualities or characteristics do participants associate with helium? How might those characteristics relate to rapid transit design?

Other exercises De Bono suggests are challenge, exaggeration, distortion, reversal, and wishful thinking. Challenge basically refers to recapturing that childlike innocence about why things happen they way the do: why do we all drive cars to work? why do women shave their underarms, but men don’t? Exaggeration takes some idea, quality, or trend and inflates it ad absurdum: washing and waxing your car once a week prevents rusting and maintains the finish -- why not a self-washing car that cleans itself immediately as needed? Distortion asks participants to transmute the familiar and render it unfamiliar: housekeys truly become house keys -- musical signatures that define your house’s decor, unlock its computer functions, and combine with your car keys, office keys, and RV keys to create your little signature symphony.

Reversal refers to restating an assumption, constraint, or concept as its logical opposite: all dogs have fleas -- no dogs have fleas (fleas become allergic to dogs? extinction of fleas as species?). Finally, wishful thinking also asks us to recapture a childhood skill -- daydreaming.
-- by stating our desires without letting the pragmatic adult mindset edit them into nonexistence, e.g., all children receive three nutritious meals a day.

These five exercises problematize the ordinary. Compare them with the assumptions and processes of futures fluency: futures fluency exists to challenge the assumptions with which we operate in the present, by telling us the only certainty is change. Emerging issue extrapolation is basically exaggeration: from the trends of increasing credit card use and ATM card distribution, exaggeration develops a scenario for "smart money." Cross-impact analyses enable us to distort the roles, patterns, and objects we take for granted now into some transformed future: tourism becomes at-home recreation with the advent of virtual reality CD's of Hawaii, of the Serengeti, of the Himalayas.

Reversal and wishful thinking are the heart of vision workshops. Reversal is the quickest way to get people from a cathartic statement of their woes to a wishfully thought out vision of a preferred future: the U.S. court system is slow, ineffective, and intolerant of other cultures -- the U.S. court system of 2025 acts on cases within a week, resolves 90% of the cases to the satisfaction of the parties involved, and requires cross-cultural training of all affiliated professionals. That is obviously wishful thinking, and it was achieved via reversal. Because reversal is a simple logical process, most people will simply go ahead and do it when asked, without invoking their internal "yes, but..." editor. It is thus an effective springboard into vision.
Futures fluency problematizes the present -- which for most of us is the ordinary. But in order to achieve fluency in thinking about all the futures possible, we must challenge the mundane within our own minds. Lateral thinking skills enlarge the scope and flexibility with which we ask "why?" and "what if...?" The matrix below suggests three exercises to pry people's thinking out of accustomed paths.

<table>
<thead>
<tr>
<th>EXERCISES: Lateral Thinking</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provoking Alternative Futures</td>
<td>15</td>
<td>Generate new concepts and assumptions; highlight and challenge current worldview</td>
</tr>
<tr>
<td>The Persistent Child (Assumption Challenge)</td>
<td>15</td>
<td>Identify and challenge assumptions usually considered &quot;givens;&quot; brainstorming</td>
</tr>
<tr>
<td>Random Futures</td>
<td>15</td>
<td>Generate new associations among ideas; transform one aspect of present society</td>
</tr>
</tbody>
</table>

When Provoking Alternative Futures, facilitators begin by offering everyone (or each working group, in a larger workshop) a *po*. For example, in a community planning workshop, facilitators might begin: *Po*, no-one owns their own home. For fifteen minutes people then brainstorm supporting statements that would make this provocation true, explain how it works, and suggest what impact it has on community life.

Some of the explanations may contradict each other. If so, participants may arrange their list into groups of ideas and concepts that are internally
consistent. These groups of ideas are, in essence, the foundation of possible alternative futures for the community. This exercise forces thinking out of accustomed tracks and gives the facilitators an opportunity to reward such risky thinking.

The assignment of The Persistent Child is to ask "why?" and "why?" and "why?" again. Participants first identify target assumptions. Within a city government or a corporation, the most rewarding targets will often be "how" -- how do we do this? The city generates revenue from taxes, from fines, from municipal bonds; the snack-food corporation distributes all its goods in convenience stores. Why? Why not a lottery, or foreign aid, or a mandatory service year, to enlarge city resources? Why not distribute snack foods at bus kiosks, offer them on airplanes, attach dispensers to phone booths?

This exercise asks people if they are living or working in a rut: are they continuing along a certain path "because it's always been that way?" Has it always been that way? What other options exist -- or need review, if suggested previously? Have conditions changed? The Persistent Child asks that people look closely at the "givens" in their environment -- and evaluate whether they really are givens.

To generate transformations or distortions that help open a window to a possible future, participants first choose something in the present as a focus, say houseplants. De Bono suggests that nouns make better random word
provocations than verbs, so assume the randomly chosen noun is chorale.

The random provocation is thus "houseplants po chorale."

What possibilities does this combination conjure up? The example was chosen with malice aforethought: one possible future this provocation suggests is described in J.G. Ballard's "Prima Belladonna." In the future within this story, bioengineering has produced orchids that sing, and can be trained to sing chorale works en masse. The provocation of this unlikely pairing distorts an ordinary piece of the present, houseplants, into a beautiful, if alien, artifact from a possible future.

Other exercises featuring lateral thinking with a futures focus are possible. In Serious Creativity, De Bono suggests that lateral thinking provides a unique tool for thinking flexibly about the future:

Creativity is also required for laying out the possible future in which we may have to work. ...creativity is needed to produce the discontinuities that will not arise from the extrapolation of present trends.\(^6\)

The acknowledgement that there might be alternatives and the search for those alternatives is a fundamental part of creative thinking. Indeed, the different techniques of lateral thinking are directed to finding new alternatives.\(^9\)

The exercises described stretch people's thinking about the present and the future. They enhance our ability to see things differently and to break out of our assumptions, prejudices, and worldviews. Thus they provide the initial momentum for acquiring futures fluency.
ACQUIRING FUTURES FLUENCY: Exercises

Facilitation skills help people listen to each other. They boost the ability to absorb unique perspectives from others. Lateral thinking skills help people create unique perspectives within their own mental landscape. Both are stepping stones to imagining significantly different alternative futures. The following paragraphs offer seventeen exercises which provoke thinking across the different components of futures fluency. For each component, a matrix summarizes the three or four relevant exercises; the exercise instruction sheets are printed in Appendix A.

Identifying Change

These exercises are generally used as futures warm-ups to focus people's thoughts on the future and to hone their listening and imaginative skills. "Emerging Trends" and "Key Forces" ask participants to nominate critical

<table>
<thead>
<tr>
<th>EXERCISES: Identifying Change</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging Trends</td>
<td>15</td>
<td>Identifying emerging trends, high impact innovations</td>
</tr>
<tr>
<td>Key Forces Changing the Community/World</td>
<td>30</td>
<td>Appreciate emerging trends; global trends working locally; brainstorming skills</td>
</tr>
<tr>
<td>Community Changes, Past and Future</td>
<td>45</td>
<td>Appreciate extent, speed of change; begin to build a mental timeline; brainstorming skills</td>
</tr>
</tbody>
</table>
trends of change, which may be emerging, current, or historical. "Emerging Trends" works well when paired with readings, media, or a presentation focussed on trends of change. It reinforces the message of the readings or presentation by asking participants to rephrase these new ideas and offer them back for workshop consideration in another context.

"Community Changes, Past and Present" helps build an extended timeline for the group, and makes the transition into a future perspective easier. "Community Changes" can be focussed to elicit problems that have emerged as well as past success stories, and thus serves as a psychological springboard into the visioning exercise.

**Critiquing Implications**

With these exercises, all the "yes, but..." people can really shine. Where they are asked to withhold judgment and evaluation in almost every other futures exercise, this futures component actively solicits their concerns about negative impacts. Note, however, that it does NOT request participants to enumerate the constraints on the occurrence of any particular change.

The three exercises listed acknowledge and focus on the fact that even our dreams, upon closer examination, will be flawed: be careful what you wish for, you may get it. Thus these exercises make visioning an iterative process. After identifying possible flaws, people amend their vision, or the steps they have planned to achieve it, to ameliorate those flaws and their impacts.
The first exercise takes an informal approach, beginning with a simple brainstorming of possible effects or impacts, and discussing such issues as who will benefit and who will lose. The second exercise requires iterative brainstorming to elicit different levels of side effects, and loosely groups those effects into related families. The third exercise is more rigorous, comparing the cumulative impacts possible across several trends, or scenario or vision subcomponents. Exploring the potential side effects of a trend, a scenario, or a vision is frequently foregone due to workshop time constraints. As it is crucial to futures fluency as planning, these exercises should be worked into the larger process somewhere even if no time exists during the workshop proper.

**Imagining Difference**

Initially, people need help to shatter the limits of their thinking about the future. *What Could Never Happen* serves to turn explicitly stated skepticism into a scenario of the future; *Taking Trends to Extremes* asks participants to

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**Table 10. Exercises in Critiquing Implications**

<table>
<thead>
<tr>
<th>EXERCISES: Critiquing Implications</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying Side Effects</td>
<td>30</td>
<td>Identify side effects; identify benefits/disadvantages, and for whom; discussion</td>
</tr>
<tr>
<td>Futures Wheels</td>
<td>45</td>
<td>Focus on a single court action, explores primary, secondary, and tertiary side effects; brainstorming</td>
</tr>
<tr>
<td>Cross-Impact Matrix</td>
<td>60</td>
<td>Consider several components/actions; identify cumulative impacts; discussion</td>
</tr>
</tbody>
</table>

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inflate trends to the point of logical absurdity. Both the Alternative Futures exercises put participants into a possible future, very different from today, and ask them to imagine how their community might change, and what new critical issues it might face. To help people envision how social and technological change might affect their communities, let participants review and critique scenarios of alternative futures.

Table 11. Exercises in Imagining Difference

<table>
<thead>
<tr>
<th>EXERCISES: Imagining Difference</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>What Could Never Happen</td>
<td>15</td>
<td>Rethink traditional structures; brainstorming skills</td>
</tr>
<tr>
<td>Taking Trends to Extremes</td>
<td>30</td>
<td>Push extrapolation to absurdity</td>
</tr>
<tr>
<td>Alternative Futures I: Different Communities, Different Lifestyles</td>
<td>45</td>
<td>Re-visions/redesign community; adapt to radically changed circumstances; imaginative and scenario building skills</td>
</tr>
<tr>
<td>Alternative Futures II: Community Headlines 2020</td>
<td>30</td>
<td>Re-visions community; identify critical issues in changed milieu; scenario-building skills</td>
</tr>
</tbody>
</table>

Appendix A offers scenarios of alternative futures regularly used for this exercise by the Hawaii Research Center for Futures Studies, along with the exercise instructions. These scenarios invoke a wide variety of responses, from mild disbelief through guffaws all the way to unbridled outrage, but are actually logical extensions of trends identifiable today. The exercises are designed to be both provocative and fun. Since most of the scenario is already drafted, participants have only to add, in a logically consistent fashion, further details to

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a future already in progress. This helps people understand what level of detail a vision might contain, and thus these exercises act as a sort of "dry run" for unassisted visioning. Finally, they help people identify characteristics that they may want to specifically exclude -- or include -- in their vision statements.

**Envisioning Ideals**

The first two vision design exercises, Reverse the Negative and Trends for Community Design, also work to expand participants' imaginative horizons. But where the alternative futures exercises do so by presenting ready-made scenarios, these two exercises ask people to brainstorm ideas as the initial step to devising a vision. Thus people do not have to begin their vision creation cold: these two exercises act as kick-starters, or prompts, to the imagination.

**Table 12. Exercises in Envisioning Ideals**

<table>
<thead>
<tr>
<th>EXERCISES: Envisioning Ideals</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse the Negative</td>
<td>15</td>
<td>Remove constraints on thinking; get past &quot;yes, but...&quot;</td>
</tr>
<tr>
<td>Trends for 21st Century Community Design</td>
<td>15</td>
<td>Explore planned community uses of both social and technological innovations; imagining trade-offs in choosing vision details</td>
</tr>
<tr>
<td>Personal Vision Worksheet</td>
<td>60</td>
<td>Express characteristics that would define the ideal community</td>
</tr>
<tr>
<td>Group Vision Development</td>
<td>75</td>
<td>Identify common themes, agree on related details, clarify and expand specific details</td>
</tr>
</tbody>
</table>
Both Reverse the Negative and Trends for Design may also be used as probes by the facilitator, rather than formal exercises.

If people's imaginations seem blocked, working through one or two of the questions from either of these worksheets can get ideas flowing again. Alternately, remind participants that "people with vision constantly fight conventional wisdom." What suggestions could participants make for the future of their community that would fly in the face of conventional wisdom?

The Personal Vision is less an exercise than a meditation. It gives participants quiet time to mull over the presentations and provocations that introduced the workshop, and to use the information and inspirations derived therefrom to dream. It asks that they dream with great specificity and, as much as possible, express their dreams graphically, using words as the last resort.

Group Vision Development essentially maps out a means to combine the common elements of all the personal visions into a first draft of a group vision. It also suggests ways to acknowledge and discuss disagreements about group vision elements.

**Planning Achievement**

Visions do nothing unless we act on them. But at first blush, they can seem so idealistic as to be dreams. Thus the first exercise in this section seeks to answer the question, "What, logically, would need to happen for this vision to be reality thirty years from now?" Participants attempt to deduce necessary precursor events for the vision, and arrange them on a timeline.
Table 13. Exercises in Planning Achievement

<table>
<thead>
<tr>
<th>EXERCISES: Planning Achievement</th>
<th>TIME (MIN)</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Here to There: Necessary Precursor Events</td>
<td>45</td>
<td>Design logical links between the present and the vision; brainstorming</td>
</tr>
<tr>
<td>Where We Can Start</td>
<td>30</td>
<td>Identify resources, allies, action settings to achieve earliest precursor, or foundation, of vision; suggest initial objectives</td>
</tr>
<tr>
<td>What We Can Do Now</td>
<td>45</td>
<td>Participants list actions they could take to achieve initial objectives; offer time estimate and commitment to one</td>
</tr>
</tbody>
</table>

The last two exercises begin to sketch out a strategic plan and list present objectives that would help create the necessary precursor conditions for the vision. During this process, all of the "yes, but..." and "that will never work because..." people will surface with a vengeance. Remind the group that the only process allowed in this session is problem-solving, and the only attitude appropriate is "can do!" Once these exercises are complete, however, it makes sense to critique the implications of the strategies and tactics suggested, and to consider possible roadblocks in order to prepare for them.

Each of these seventeen futures exercises is meant to be provocative and challenging, to enhance creativity. But they are also meant to be fun. Participants ought to be laughing at least once in the course of each hour. If they aren't, then it is likely they are holding the present in too much reverence.
Re-visit lateral thinking, and tell participants that they are Not Out Far Enough -- get Way Out There, Beyond Way Out.

**IMAGE BUILDING/VISION CREATION AS TEAMWORK: Workshops**

Individuals may choose to work by themselves through each of the exercises described, or a group may opt to play through just one. Futures fluency is a strategic skill, one which everyone should be encouraged to acquire for themselves: we could all use a little more flexibility and adaptability in how we face our futures. The next few pages, however, focus on combining these exercises to achieve specific goals for people working together.

Three workshops are described. The first extends through six weeks by virtue of a "brown bag lunch" format; it focusses on incasting and considering alternative futures. The second is a one day workshop designed to teach people to construct scenarios of alternative futures, starting with base data on emerging trends. The third is a two-day visioning workshop. For each kind of workshop, the description reviews the basic process and then explains how the different exercises fit together, forming an agenda appropriate to the goals of that kind of workshop.

**Incasting**

It is useful, as practice, to look at scenarios of alternative possible futures and ask how our community or organization might change in each different future. What unique opportunities and constraints does each alternative
scenario offer? This gets people out of the present, distances them from their cares, and offers a psychologically neutral space to ask "what if?" It also teaches people to imagine the future one detail at a time, to maintain internal consistency with the base assumptions of a scenario, and to push at the boundaries of the possible.

Facilitators implement this approach several ways. With a small group facilitators begin by describing several possible futures. The scenarios themselves may emerge from futures research, from science fiction novels, short stories, or media productions, or from expert consulting completed specifically for the community or organization using the scenarios. The group then brainstorm the transformations any single institution would undergo within those futures.

Group dynamics become awkward above a dozen, so with larger groups the exercise works better if several smaller teams are formed. Each team is assigned a single future for which they consider an identical set of questions. Again, the goal is to depict what form an institution or technology would take in the assigned future, or how a particular critical issue would play out in the assigned future.

The only evaluative criterion at this point is internal, logical consistency with the assumptions -- either explicit or implicit -- of the assigned scenario. Each team then reports back to the group as a whole and the participants are encouraged to evaluate and discuss the differences across the scenarios.
The first sample agenda in Appendix A assumes a group of ten to fifteen people meeting an hour and a half once a week for six weeks. This is envisioned as a series of brown-bag lunches devoted to considering alternative futures for the organization or community represented. The first meeting is devoted to introductions, expectations, groundrules, and a warm-up exercise. Random Futures would be a good start, serving to remind people to focus on possible transformations their organization may undergo in the future.

Next, participants brainstorm a list of critical issues. This will be used to focus the questions participants ask themselves about their organization's or community's role across the alternative scenarios. Finally, organizers distribute the alternative futures scenarios and the incasting instruction sheets, answering any questions.

The next four meetings each discuss one alternative scenario, incasting the community’s or organization’s new roles, forms, and functions under the changed assumptions of each alternative future. For each scenario incast, participants should complete the session with a list of the advantages of that future, the disadvantages, and commentary on how the critical issues fare given the circumstances of that future. The instruction set for Alternative Futures I: Different Communities, Different Lifestyles, is designed for these activities. If the group works particularly fast and feels inspired, they may wish to indulge in Alternative Futures II and create community headlines that succinctly express the changes they have incast.
In the final incasting meeting, participants debrief themselves on the results of their explorations in alternative futures. At base, this means comparing their community’s circumstances across the four scenarios, summarizing relative advantages and disadvantages. It also includes comparing how the critical issues fared across the four futures. Which scenario ameliorated critical issues? Did any particularly exacerbate critical issues?

The facilitator closes this round of incasting by pointing out the current trends which support the possibility of each scenario. Based on comparative evaluations of these possible futures, the participants discuss which trends they would encourage, to produce a more positive future for the community, and which they would constrain, to prevent negative futures. This workshop provides a good working foundation for visioning and strategic planning, and the community’s efforts at enhancing futures fluency may embrace those activities next.

**Scenario Building**

The previous workshop based its activities on scenarios borrowed from futures research, science fiction, or expert consulting. Scenario building workshops base their activities on emerging trends, using them to construct original scenarios. Just as incasting is a good training exercise for -- and part of -- scenario building, scenario building itself is a good stepping stone to visioning.
The first step in scenario building is data review. Facilitators present and explain three to five emerging trends, answering any questions participants may have about the data. These trends are then stated as provocations, e.g.,

**TREND:** The percentage of whites (Caucasians) in the global population is decreasingly rapidly.

*PO,* by 2050 only 2% of the world population will be white.

Making the provocative statement as specific as possible by including dates establishes a range and timeline for the changes implied.

Taking each trend separately, the participants then brainstorm possible side effects. What impact will this have on governance? education? mass culture and global media? international business arrangements? Participants are using the trends as simple provocations to image difference.

Arranging the trends on a 3 X 3 (or 4 X 4, or 5 X 5) table, the recorder fills in the single trend side effects down the diagonal. Participants then look at what possible impacts these trends might have upon each other, brainstorming suggestions to fill in the rest of this qualitative cross-impact matrix. This second step is essentially a complex provocation, using an emerging trend against another as Random Futures uses a random word against a key concept: emerging trend *po* emerging trend.

Completing the cross-impact matrix is difficult, challenging work. But when the group is finished, they have an assortment of conditions, characteristics, and operating assumptions that define a reality quite different from the
Having completed some rather strenuous lateral thinking, the scenario building workshop then switches modes back to vertical thinking -- logical frameworks. With the aid of a "reality checklist," participants flesh out the details of their proto-scenario.

A "reality checklist" is simply a generic list of common components of social reality: government, economy, education, family structure, housing, transportation, energy, environment, arts & culture, recreation, crimes & vices, etc. Using it, the participants incast the form each component would take given the conditions, characteristics, and operating assumptions they have just created from the emerging trends. As with any incasting exercise, maintaining internal consistency is critical.

Finally, someone or some few people must be nominated to compose the narrative which describes the scenario in story form. Given adequate time, the group could choose to complete this last step together, but that can take as long as the rest of the process combined. It is more efficient, if less interactive, to nominate an official storyteller, who retires with all the bits and pieces and emerges later with a completed narrative. This is submitted to participants for review and comments.

The second sample agenda in Appendix A suggests the format for a one day scenario-building workshop. The agenda begins with the facilitators welcoming participants, reviewing the agenda, and pairing participants to Listen for Detail. This warm-up makes for interesting, if somewhat intense,
introductions, with the participants in effect introducing each other. The facilitator may then elicit expectations and ask the group to compose the groundrules. Before the coffee break, a quick round of Provoking Alternative Futures provides an initial foray into lateral thinking. This exercise yanks people out of their accustomed assumptions about the way things are, and thus allows facilitators to encourage and reward the kind of thinking that will make for interesting scenario construction.

In the hour and a half between the coffee break and lunch, the facilitators present the emerging trends which have been chosen as the primary assumptions of the scenario. Between forty-five minutes and an hour long, this presentation provides detail on the data supporting the trends, and offers what analysis exists. Participants use the remaining time before lunch to ask questions, clarify details, and discuss the trends amongst themselves. Schwartz has suggested that identifying strategic concerns and potential environmental certainties provides useful bounds for the scenario, and that activity would be an appropriate part of the trends discussion.10

After lunch, participants begin the actual scenario construction by building Futures Wheels for each trend, brainstorming the individual trend effects. This takes about three-quarters of an hour. The facilitator enters the primary effects on the diagonal of the Cross Impact Matrix, and participants begin brainstorming combined effects and impacts. Completing the matrix takes about an hour, after which the workshop breaks for afternoon stimulants.
When participants return, the facilitator takes about fifteen minutes for questions, clarifications, and general discussion of the emerging scenario gestalt. This discussion is followed by a forty-five minute incasting. In the last half hour, participants nominate a narrator to write up the scenario. They may give the nominee some direction by discussing the overall ambience of the future imminent in their collection of created details, or suggest a bumper-sticker-like title for the scenario, or a metaphor to capture its feel.

Scenario building uses both vertical and lateral thinking skills. It acquaints participants with emerging trends and asks them to identify possible side effects. It asks them to consider how changes occur in society and the environment. It challenges them to extrapolate ways in which trends could interact, and to create a densely detailed image of a possible future resulting from those interactions. Scenario building performed for its own sake is the core of futures fluency, and the core of futures studies as a discipline as well.

Visioning

People generally work through five stages in building a vision: problem identification; past success; future desires; identifying measurable goals; and identifying resources to achieve those goals. The following paragraphs briefly describe each stage.

Problem identification often begins with a generalized feeling of dissatisfaction with the present, with the way things are. After dwelling on this dissatisfaction for a while, people are better able to enumerate the specific
problems or issues that define it. Consciously expressing and acknowledging the problems that bother them is cathartic -- and this first stage of visioning is often referred to as the catharsis exercise.

Second, people often judge dissatisfaction in relation to past successes or achievements. Something that once worked well, that once succeeded, no longer does: how do they fix it? What were they doing right then that somehow no longer applies to the situation, perhaps as a result of cumulative changes? This also includes identifying what is STILL working well. Reminding people of their successes is useful for two reasons: 1) Analyzing previous successes helps them figure out how to generate more success. 2) Identifying and enumerating critical problems can effectively immobilize people with despair; remembering that they have in the past effectively worked to change their environment and achieve their goals prevents that.

Next people need to imagine how they would prefer things to be. Once they have acknowledged their current problems, worries, and constraints, and allowed them significant space within the group consciousness and on the wall notes of the group memory, they must grant themselves permission freely to imagine the best that they can for themselves, their community, their agency or organization, or the world.

This is often quite difficult. First, because people are trained by daily life and by their professions to be pragmatic, to focus on solving the current problem rather than setting the distant -- and idealistic -- goal. Second,
because most people have a genuinely difficult time imagining a truly different future. Third, because "the future" represents a very large conceptual space: people need to break it down into manageable bites. In fact, it is often useful to include an incasting exercise in a vision workshop for this very reason: to allow people to try scenario elaboration with training wheels.

Nonetheless, given enough structure in the way of ground rules and cheat sheets -- organized check lists of kinds of critical details a vision of a preferred future should contain -- it is certainly possible to move directly into the visioning process without first exploring alternative possible futures. A positive vision for the future can emerge out of a reversal of assumptions; out of a metaphor, a poem, a song, a bumpersticker; out of two or three core values ("a world without weapons;" "life, liberty, and the pursuit of happiness"); or out of an individual's image of a perfect "day in the life."

Fourth, people must consider how their imagined preferred state would work in practice: what are the details and specifics of the vision? This is the hard work of vision building. The previous phase emerges from skill at fantasy; this stage must be more orderly, more logical, filling in the details of the vision to answer the basic questions any visitor to this preferred future might ask. What are all the necessary pieces, and how do they fit together? This stage is critical because each detail is, in effect, an implied goal.

Fifth, in order to feel that they can actually create the vision they have imagined, participants must define the next steps, describing the causal chain
that links the vision to where they are now: illustrate the path of a thousand steps that will take them to their preferred future. Here visioning slides into strategic planning, and participants may organize task forces around specific strategies with a commitment to meet again for progress reports.

The final sample agenda in Appendix A offers the outline of a two-day visioning workshop. During the first hour and a half, facilitators and workshop organizers introduce themselves, review the proposed agenda, elicit expectations, and work with participants to compose the groundrules. As teamwork, connections, and a sense of mutual support are critical to creating a community vision, Net Weaving provides an appropriate warm-up prior to a break.

After the coffee break, the facilitators or a guest speaker offers a thirty minute presentation on emerging trends, leaving about fifteen to twenty minutes for questions. In the remaining half hour, participants brainstorm past changes and future trends within their community and build a timeline, completing the exercise on Community Changes, Past and Future. This gives the group a chance to review where the community or organization has come from, and to consider where they think it might be going. And so to lunch.

After lunch people will need to get their brains re-engaged, so a short "re-heating" with the fifteen-minute exercise, What Could Never Happen, will begin the afternoon’s task of creating a new, positive future. In order to acknowledge and set aside problems, fears, and worries, facilitators will lead a
half hour catharsis brainstorming designed to elicit participants' fears and worries about their community. This then provides the initial input for the group to Reverse the Negative, turning their fears upside down and restating them as positive opposites. On this positive note, the group breaks for refreshments.

After the break, participants work individually on their Personal Vision Worksheets for an hour. Facilitators stress that people should get comfortable, sit on the floor, meditate on the balcony, and use whatever graphic abilities and rudimentary sketching skills they have to express their vision without words. In the last half hour of day one, participants tape their vision depictions to the walls, forming a vision gallery, and share them with each other. Positive reinforcement, applause, and congratulations showered by the group on each individual reinforce the goal of idealistic visioning. Day one ends with a quick preview of activities for day two.

Day two begins with a review of the previous day's accomplishments, and a look at the agenda. People have had time to think about their own vision and what they liked about other people's visions. The participants begin the day by forming self-organized working groups. That is, the facilitators direct them to look around the vision gallery for similar and simpatico visions by others. During the next hour, these self-nominated task forces then follow Group Vision Development guidelines to meld their individual visions into a group vision.

After a fifteen minute break, the groups present their joint vision to the workshop as a whole. In this reiteration of Group Vision Development,
facilitators remind people to look for common themes, specific details everyone really likes, and the recorder jots down these suggestions. From this list, participants then begin to build the Big Picture: the vision of the workshop as a whole. As much of the framework for the Big Picture is sketched out on butcher paper as can be completed before lunch.

After lunch, people finish adding agreed-upon details to the workshop vision. They refine it and allow some room for mediated disagreements on details by suggesting people post questions on items that make them uncomfortable (using post-it notes). The group as a whole then works to answer or mediate these questions one by one. While fully developing a community vision requires an ongoing process, this beginning effort at allowing everyone a chance to make it their own should take at least ninety minutes, followed by a group hurrah! and a break.

Achieving closure in a vision workshop means reassuring participants that this creative work was not for naught. Two exercises can accomplish this during the last hour and a half: Where We Can Start has participants identify action resources, program resources, allies, and action settings for strategies to achieve vision goals. What We Can Do Now asks people to look at the vision goals and the resources, allies, and action settings listed, and commit to completing one or two of them by a certain date. To end positively, some senior member of the community or organization then closes the workshop with
a reminder of past successes and achievements, and an encouragement for people to start working now to create the positive future they have envisioned.

The preceding workshop designs suggest ways in which the exercises offered in this chapter combine to help people consider alternatives, think through possible changes, and envision preferred futures. Many other combinations are possible. As people, communities, and organizations become more futures fluent and more creative, they will adapt the exercises to suit different circumstances and different combinations of people. They will invent and share new ways of enhancing futures fluency and creative thinking about the future. Futures fluency is an ongoing process, dynamic, flexible, and expansive. Any group work to enhance it should mirror those qualities.

FROM IDEA TO IMPLEMENTATION: Live Futures Workshops

In presenting different techniques that help people acquire futures fluency and so develop visioning skills, this chapter stressed facilitation and lateral thinking. When working with groups the ebb and flow of communication is critical. Both the facilitators and the participants themselves must monitor the tensions that form and dissolve, and listen actively. The synthetic culture the group creates generates energy which supports the emergence of vision. Provoking people into creativity enables their imaging and visioning to break the constraints of the everyday.
Trained facilitators and recorders are indispensable for groups who have never before experienced these sorts of workshops. But groups with more experience in process skills might want to try self-facilitation. De Bono's *Six Thinking Hats*, usually categorized as a group creativity handbook, could actually be used as a group self-facilitation handbook. The technique it presents requires people to categorize each statement they make by the kind of thinking that prompted it: factual observation (relay only data, not analysis); feelings (only what you feel, not why you feel it); critical comments (flaws in logic, constraints, problems); positive, speculative comments (additions that build on ideas or arguments on the table); creative comments (new ideas, lateral thinking); and comments on the group process itself (how the group is thinking and problem-solving). With a group used to the conventions of switching hats, facilitation occurs organically.

Workshop designs can create dynamic tension, or creative imbalance, by strategic ordering of the exercises. Vary whole group exercises with pair exercises; put presentations -- the passive listening or viewing experiences -- before highly interactive work. Position breaks after high energy exercises -- the energy will multiply during the break as everyone talks about the exercise, and will return with them. Alternate intuitive, feeling exercises with logical, problem solving exercises -- or, as De Bono would put it, alternate lateral thinking with vertical thinking. Keep participants on their toes, challenge them,
but always keep the agenda and next steps clear -- people get cautious if they suspect surprises are in the offing.

These design suggestions have assumed first that the goal is transferring futures fluency to the wider public. With any new intellectual discipline, tension exists between the call of pedagogy and the call of research. Rather than forcibly separating the two, the next chapter will argue that teaching in this case is research. The workshops not only impart skills of value to the participants, but they also provide the futures researcher with a rich source of information on what people think about the future and how they think about the future.

Three analytic tacks could be useful: 1) observe and analyze the workshop process, monitoring the flow of communication and ideas, noting both floods and logjams as a means to improve the techniques of acquiring futures fluency; 2) analyze the output, not only for the use of the participants themselves, but for the sake of broader social science concerns; and 3) observe effects and impacts of futures workshops upon the growth of leadership within the community or organization.

Chapter four characterizes leadership as an art and vision as its dynamic center. Futures fluency, argues chapter five, nurtures and renews the living vision. The preceding pages suggest ways that real people living and working in the real world can experience the critical and creative modes of thinking called futures fluency. Up to this point, all the arguments made and concepts described are merely ideas on paper. Beyond here lie dragons: those same
real people, assembled in workshops, who may or may not play the game as
described theoretically so far. The thing to remember is that dragons, while
temperamental and perilous, are also glorious and exhilarating.
NOTES


8. de Bono, *Serious Creativity*, 72.

CHAPTER SEVEN

ENHANCING VISION IN THE POLITICAL ARENA

PRACTICE AS RESEARCH

"People" is not a monolithic unit; "organization" is not a single consciousness; "government" is not a solitary will. Communities exist because individuals construct them out of their ideas and feelings, creating a consensual social reality. Individuals make up a "people," an "organization," or a "government." Individuals create the possibilities for different futures by their actions, their choices, and their beliefs about and desires for the future. Where people or organizations or governments are planning for alternative futures or working to realize a vision, it is because individuals agreed together on certain beliefs and desires. Chapter Five stresses that there are no future facts -- but the interested social scientist can look for information on those beliefs and desires.

This chapter presents five case studies of applied futures fluency. Each case involved a different organization, and as their specific goals varied, so did the combinations of futures exercises. Each workshop concluded with at least some consideration of vision. These workshop reports are offered not just as proof that people in the political arena will engage in futures thinking, but also as samples of a participatory, proactive research method which engages people in considering how and what they think about the future, and enhances their ability to do so.
The first section of this chapter begins by reviewing the rationale for using futures thinking practice as research on futures thinking. It then describes the framework used to compare and evaluate the five case studies. The second section presents applications of futures exercises by five groups: the Micronesian Diplomatic Training Program of the U.S. Foreign Service Institute; the Health Promotion and Education Division of the State of Hawaii’s Department of Health; the Hawaii Teen Pregnancy and Parenting Council; the 1991 Conference of Pacific Region Coastal Zone Management Programs; and the Office of State Planning, State of Hawaii. These are compared for relative success and failure in process as well as output. Finally, the chapter concludes with lessons learned and questions raised.

**Why Use Practice as Research?**

A positivist approach to research on what people think about the future might begin with a survey. Researchers could design questions to elicit views about possible futures, characteristics of the respondent’s preferable future, and data about each respondent such as age, gender, economic bracket, level of education, religion, or ethnicity. The survey team could then cross-correlate respondents’ perspectives on possible and preferable futures against the demographic and socioeconomic variables.

This approach purports to adhere to scientific method. In theory, the survey researcher is an unbiased cipher inserted temporarily into the respondent’s reality, using a neutral instrument designed to extract information
in a way that is repeatable across a specified set of respondents. In practice, it
doesn't work out so neatly. A survey designed to be easily repeated and easily
coded limits how individuals can respond to questions. For example, the
surveyor cannot clarify questions for a particular respondent or otherwise adapt
questions to context, as that mars repeatability. Answers are often provided in
the form of scales or multiple choices; where a few open-ended questions are
asked, limited time is given for response. Thus the need for repeatability and
quantitative analysis biases responses by handicapping the communication
between researcher and respondent.

Those biases occur when actually implementing the survey. Further up
the research stream, biases emerge from the structure of the questions, the
answers presumed possible and provided, the language used, and the
perspectives and assumptions of the researchers themselves. Designing a
survey limits the thinking of researchers as well: in order to "capture" data,
researchers must limit the situation, setting boundaries to their own thoughts on
the topic as well as fencing in their respondents'. In addition to handicapping
communication, this entire mode of investigation also hobbles the creativity of
both researchers and respondents.

Another approach open to researchers is the in-depth interview.
Interviews by their nature require researchers to listen more than surveys do.
Interviews allow more give and take between researchers and respondents.
Respondents can challenge questions, change their emphases, or qualify them
to fit their own context. Interviews thus provide much more flexibility of communication. They allow space for bursts of creativity, for provoking new thoughts. They can provide a much richer, more vivid, multi-dimensional portrayal of people's beliefs and desires about the future.

Interviews offer researchers the opportunity to collect data, but they also offer respondents the opportunity to teach researchers what errors in assumption they might have made formulating their research questions. The process can evolve into a dialogue, a joint effort to increase understanding of how and what people think about the future. Any progress towards balanced dialogue helps dismantle the wall that the positivist myth of value-neutral science builds between the purportedly unbiased scientist and the allegedly biased subject. An evolving dialogue which considers how individuals in a particular place and time think about the future empowers all participants as researchers.

This perspective draws on the work of critical theorists and, more specifically, on that of Paolo Freire. The former seek an approach to research that lets them bridge the gap between the airy constructions of social philosophy and theory, and the leaden concerns of daily life.

...social science from this perspective necessitates an intersubjective collaboration between researchers and the subjects who are the focus of the inquiry. The truth and integrity of such research lies, in part, in the successes in which the subjects develop a critical awareness of their situation and act to participate in and determine changes in their own lives.
This is a sound basis for futures research; no futures researcher wants to be Cassandra, forever announcing potential crises and forever unable to inspire thought, plans, or action from her listeners. Facilitating people to "determine changes in their own lives" is the raison d'être of futures fluency.

Freire elevates the stakes by adding the notion of transcendence. That is, research should not merely help people determine the shape of their own lives, it should help them perceive and exceed their own potential. It should facilitate vision.

The object of the research process should be the liberation of human creative potential and the mobilization of human resources for the solution of social problems. Interactive, proactive research methods are a bias of futures fluency, because it assumes that the more people think about the future, the better that future can be. It also assumes that the more people think about how they think about the future, the more creative their futures thinking will be. Thus it is dishonest for researchers grounded in futures fluency to pretend they have no agenda; they do -- they work for universal futures fluency. That is their vision, their ideology, and their bias.

Pragmatically speaking, a participatory, proactive research technique is also more efficient. Once researchers admit that their research agenda includes encouraging futures fluency, they can simultaneously promote futures fluency and work with participants to refine the processes involved, identify optimum conditions for engaging in futures thinking, and explore the range of possible
outcomes and output. In short, futures practice as research has three primary goals:

1) to observe and analyze the exercises and workshop process in order to improve the techniques of acquiring futures fluency;
2) to analyze the output from exercises and workshops to understand variations in how and what people think about the future; and
3) to observe effects and impacts of futures exercises and workshops upon the growth of leadership within, and the creation of positive futures for, the community or organization.

The analysis which follows limits itself to that first goal, sifting the five case studies for lessons of success or failure which point to improvements in method. Review and evaluation of workshop output occurs in this study only as an aid to judging the degree of success participants enjoyed in thinking more creatively about the future. The section which follows describes the framework used to compare the five cases.

How Does Practice Become Research?

Practice for its own sake centers on the flow of the process, on continuous renewal of the views and visions of the future. Practice as research is self-conscious, studying the dynamics of the flow of the process, analyzing
and critiquing the views and visions of the future produced before moving on to renewal. The following pages present five examples of applied futures fluency. The next few paragraphs suggest a framework for detailed comparison of those five cases, along the general parameters of organizational characteristics, logistics, process, and output evaluation.

**Organization**

The cases emerge from the desires of five different organizations to explore the future. This parameter characterizes the differences among these organizations in terms of who they are, what their primary mission is, why they chose a futures focus for the workshop, what they hoped the workshop would accomplish, and what experience and attitudes they brought to the process. Specifically, the comparison includes the organization's title and affiliation; their mission, or at least the portion of it relevant to the workshop; their goals for the workshop; who their process champion was, if any; the degree of diversity among the participants invited; and the previous experience with group process or futures exercises among the participants invited.

**Logistics**

Context can transform a moderately successful workshop into a triumph, or degrade it with pettiness. Focussing on the practicalities of workshop organization, this parameter describes the venue, the number of participants attending, the number of futures staff involved, the availability of supplies to support exercise assignments, the amount of time allocated overall, the food
and drinks supplied, and other contextual details as relevant. This comparison begins to identify an ideal setting for undertaking applied futures fluency.

**Process**

The exercises chosen varied across the five cases. Each workshop was tailored specifically to the organization’s goals and interests, although many elements were similar across the five. The process parameter compares the specific elements of workshop design for each case: the warm-up used, if any; what kind of background presentation, if any, and how closely the exercises followed; the futures exercises chosen; what output the workshop produced; and whether any follow-up activities occurred.

**Evaluation**

Only one of these workshops requested formal written evaluations from participants. In the absence of a formal evaluative mechanism, participant response was subjectively evaluated based on levels of interaction, laughter, energy generated, and comments overheard, among other indicators. The raw number of ideas generated, divided by the approximate number of participants present, characterizes productivity.

Quality of the ideas generated is another subjective call. With regard to applied futures fluency, quality can mean one of two things. First, it can indicate the degree of difference from the present suggested by the ideas generated. Second, it can indicate how useful participants found the output in
subsequent planning activities. The comparisons that follow will use the former definition of quality.

This judgment call requires some futures research expertise; the evaluator compares the ideas generated not only with the commonly held view of the present, but also with the outside edge of the envelope of the present, factoring in emerging trends and recent innovations. Workshop output demonstrates a high degree of difference from the present if the participants have transformed any basic social feature(s) -- e.g., family structures, production, consumption, employment, education, the government -- so completely that they no longer resemble their present-day incarnation. Comparisons of the cases will express degree of difference from the present as merely "high," "medium," or "low," but will offer in parenthesis the number of significant transformations found in the workshop output.

With regard to practice as research, the great flaw in what follows is that the self-consciousness is an afterthought: this analysis, in its most self-conscious form, occurs as a post-mortem. While each workshop offered lessons about logistics, design, facilitation, and evaluation, those lessons emerged at the time from informal debriefing. In each case, the designer and the facilitators focussed on successfully completing the workshop, and thus did not collect much descriptive data from participants. Thus the very first lesson this research offers is the usefulness of gathering descriptive data from participants as part of every workshop.
PILOT PROJECTS: FIVE CASES

Micronesian Diplomatic Training Program

In August and again in December of 1990, the Hawai'i Research Center for Futures Studies (HRCFS) designed and implemented a one-day futures seminar for the Micronesian Diplomatic Training Program (MDTP), a three-week training effort sponsored by the U.S. State Department's Foreign Service Institute. This program focusses on acquainting potential foreign service officers with political and diplomatic issues of interest throughout the Pacific region. Dr. Michael Hamnett, Pacific policy specialist and program faculty, suggested the futures component as a means to sensitize participants to critical issues of change within an international context. The futures exercises designed for this program acquainted participants with a variety of emerging issues and asked them to consider the impacts of those issues both within the region and at home.

Participants included government officials from the American-affiliated Micronesian Island nations: the Federated States of Micronesia, Belau, and the Republic of the Marshall Islands. The majority of the participants were male, and likewise the majority were in their thirties or early forties. All were well-educated, white collar professionals. Most of them had previously experienced facilitated meetings in their managerial roles, but none had previous experience with futures exercises.
Both the August and December sessions were alike in mission, goals, and composition of participants. They varied, however, in both logistics and process. The August session used one of the conference rooms at the Pagoda Hotel as a classroom. It was very nearly ideal: no windows, making use of the overhead easier, and lots of wallspace for the facilitators and the discussion groups to hang the group memory. The room was furnished with a large table around which all the facilitators and faculty could sit for presentations, yet sufficient space remained for people to rearrange chairs for small discussion groups.

The December session, on the other hand, took place in the penthouse conference room of an apartment hotel in Waikiki. The room was L-shaped, and furnished with a seminar table and several coffee tables that took up enough space that finding room for break-out discussions was awkward. Windows took up much of the wall space, forcing facilitators to layer wallnotes.

The Foreign Service Institute designed the program for approximately the same number of participants each time. The drop in participants from the August to the December sessions has two explanations. First, the December session was plagued by a cold virus, and several participants were sick. Second, participants had little free time in the December schedule to complete socially obligatory shopping, and so several more disappeared for the afternoon.
### Table 14. Micronesian Diplomatic Training Program Workshops Organization

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>MICRONESIAN DIPLOMATIC TRAINING PROGRAM I</th>
<th>MICRONESIAN DIPLOMATIC TRAINING PROGRAM II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>To train Pacific Island government officials in international affairs of the Pacific Basin</td>
<td></td>
</tr>
<tr>
<td>Why futures?</td>
<td>To sensitize participants to issues of change within the international context</td>
<td></td>
</tr>
<tr>
<td>Workshop goal</td>
<td>Consider and discuss emerging issues and their impact on participants’ home islands and the region as a whole</td>
<td></td>
</tr>
<tr>
<td>Process champion</td>
<td>[not applicable, as the training program is a special event once or twice a year]</td>
<td></td>
</tr>
<tr>
<td>Diversity: culture</td>
<td>Half a dozen Micronesian island cultures</td>
<td></td>
</tr>
<tr>
<td>gender</td>
<td>about 75% men, about 25% women</td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>approximate range from 25 to 45</td>
<td></td>
</tr>
<tr>
<td>profession</td>
<td>bureaucrats and civil servants</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>comparable levels (A.A., B.A.)</td>
<td></td>
</tr>
<tr>
<td>Group process experience</td>
<td>Mixed among participants; moderate</td>
<td></td>
</tr>
<tr>
<td>Futures experience</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

### Table 15. Micronesian Diplomatic Training Program Workshops Logistics

<table>
<thead>
<tr>
<th>LOGISTICS</th>
<th>MDTP I</th>
<th>MDTP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE: convenience, suitability</td>
<td>Good: roomy, wall space for notes, room for small groups</td>
<td>Poor: too many windows; too cramped for small groups</td>
</tr>
<tr>
<td># of participants</td>
<td>approximately 20</td>
<td>approximately 15</td>
</tr>
<tr>
<td># of facilitators</td>
<td>2 (plus presenter)</td>
<td>3</td>
</tr>
<tr>
<td>Workshop supplies available/adequate?</td>
<td>Yes: overhead, easel, newsprint, markers, tape</td>
<td>Yes: overhead, easel, newsprint, markers, tape</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>8:30 - 12:00; 1:30 - 5:00</td>
<td>9:00 - 12:00; 1:30 - 4:30</td>
</tr>
</tbody>
</table>
Futures staff during the August session included one lecturer and two facilitators. For the December session, the futures lecturer offered a keynote speech focused on emerging issues on Monday. The futures workshop was held on Thursday; it began with three facilitators, but one was forced to leave early due to a scheduling conflict.

The time allocated also varied between the two sessions: the August session began half an hour earlier, and ended half an hour later. The available time for futures exercises, however, was almost the same, as the August session began with a presentation on emerging issues, and the December session did not.

The workshop design did not call for warm-up exercises. Both sessions included an overview of emerging issues along with a briefing on futures thinking. But in August, the emerging issues lecture began the day. Facilitators then followed it with the introduction to futures thinking, and rounded out the morning with a variant of the "Community Changes, Past and Future" exercise. In November, the presentation on emerging issues was part of the program's introductory lectures the first day, three days prior to the futures workshop itself. In briefing participants on futures thinking, the facilitators referred frequently to the emerging issues lecture, using details from it as examples.

The first futures exercise in each session asked participants, working in small groups, to list changes their islands have seen in the last thirty years. Facilitators next asked them to identify what forces of change they thought
would most affect their islands, keeping in mind the emerging issues presented earlier. The discussion generated by this exercise continued until lunch.

After lunch, facilitators divided the participants randomly into several groups (four in August, three in December). Each group received a narrative describing an alternative world future, which they used to incast details of life in the islands: 1) the family; 2) work; 3) the economy; 4) relations with other countries; and 5) one other area of their own choosing. The groups then reported back and the workshop as a whole discussed translation of island life into these alternative scenarios.

The last exercise asked participants to describe details of a preferred future for their country. Working groups were thus defined by island group. Each group was asked to be as specific as possible, picking a few sectors of society -- e.g., national economy, the environment, government, religion, education, community health -- and offering ideal goals within those sectors. Each island group then reported back to the workshop as a whole.

The session ended with a discussion comparing the emerging trends, the possible scenarios, and the characteristics of the future participants preferred: this sparked intense discussion on possible policy strategies. The facilitators tied the exercises back to the presentations on emerging issues and futures thinking by discussing the links among observing change, visioning ideals, and using alternative scenarios for strategic contingency planning.
### Table 16. Micronesian Diplomatic Training Program Workshops Process

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>MICRONESIAN DIPLOMATIC TRAINING PROGRAM I</th>
<th>MICRONESIAN DIPLOMATIC TRAINING PROGRAM II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up exercises</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Emerging issues presentation?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lag between presentation &amp; exercises</td>
<td>15 minutes</td>
<td>3 days</td>
</tr>
<tr>
<td>EXERCISES (minutes for each)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying Change</td>
<td>Community Changes, Past and Future (75)</td>
<td></td>
</tr>
<tr>
<td>Critiquing Implications</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Imaging Difference</td>
<td>Different Communities, Different Lifestyles (90)</td>
<td></td>
</tr>
<tr>
<td>Visioning Ideals</td>
<td>Group Vision Development (MDTP I: 90; MDTP II: 60)</td>
<td></td>
</tr>
<tr>
<td>Planning Achievement</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Output (emerging issues, scenarios, vision, plan)</td>
<td>emerging issues list; details from alternative futures; initial vision characteristics</td>
<td></td>
</tr>
<tr>
<td>Any follow-up activities?</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

### Table 17. Micronesian Diplomatic Training Program Workshops Evaluation

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>MDTP I</th>
<th>MDTP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant response</td>
<td>Enthused</td>
<td>Positive</td>
</tr>
<tr>
<td>Ratio of ideas/participants</td>
<td>160/20</td>
<td>103/15</td>
</tr>
<tr>
<td>Transformed own organization</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Transformed social structures</td>
<td>Moderate</td>
<td>No</td>
</tr>
<tr>
<td>Transformed worldviews</td>
<td>Low</td>
<td>No</td>
</tr>
</tbody>
</table>
The Foreign Service organizers of the program were not involved in our design activities, but were pleased with the results and with the interest and excitement generated among the participants. The response from the participants varied between the two sessions. The August session generated a lot of interest and enthusiasm; several participants asked if such workshops had ever been arranged for leaders on island, and supported the idea of doing so. Participants attending the December session were attentive and positive, but seemed worn out by the training program's schedule and brought much less energy to the futures exercises.

Comparing the two sessions in terms of the number and quality of ideas produced, the August workshop was by far the superior of the two. A simple count of entries on the transcribed wallnotes totals 159 for the August MDTP compared to 103 for the December session. But the real difference lies in the quality of the content. The ideas that emerged during exercises in August were specific, detailed, and often surprising; most of the wallnote entries from December are vague in comparison. The difference lies between saying "Micronesians on the moon; more kids educated at home with advances in telecommunications technologies and computers," and "transportation and communication will change."

What differences might account for the drop in quality? The change in venue contributed somewhat, as the December site was much less suited to facilitated small group exercises than the August site. Furthermore, the
December agenda was half an hour shorter on either end, and this particularly disadvantaged the afternoon exercises. The morning gained a little of that time back when the emerging issues lecture was moved to another day, but much of the time originally scheduled for introducing emerging issues the facilitators needed for a short emerging issues review.

The proximity of the emerging issues introduction was, in fact, the primary difference between these two workshops. In August, it was only fifteen minutes distant from the first exercise; in December, it was separated from the exercises by three days of policy briefings. The exercise results demonstrate that the provocations must be immediate in order to incite creativity.

Before the training program, several people voiced concern that the brainstorming techniques and futures exercises would not "translate" to Pacific islanders. In fact, no difficulty existed with either in the context of Pacific culture conversational styles or body language. Asking everyone to spend five minutes jotting ideas down before beginning brainstorming sessions helped keep ideas flowing, as facilitators could simply request the terminally shy to read their notes. HRCFS staff had tried that technique with environmental workshops designed for the Republic of the Marshall Islands; its effectiveness earned it a permanent place in the tool basket.3

These two workshops, nearly identical, offered a very good test for the one variable that obviously changed between the August and the September sessions: timing of the emerging trends presentation. Participants retain,
digest, and work with the information in the presentation much more effectively when it occurs in close proximity to the exercises. When people can experience and interact with information, they remember it. This, then, is the primary lesson learned from the Micronesian Diplomatic Training Program.

**Health Promotion and Education Division**

This was a two-day re-examination of division goals and mission: a retreat featuring approximately 100 people. The State of Hawai'i's Department of Health had undergone some restructuring, and the newly re-organized Health Promotion and Education Division set aside two days to facilitate long-term planning. Dr. Henry Ichiho, a medical/public health administrative consultant, had already been contracted to facilitate overall activities for the two days. HRCFS was brought on board at the recommendation of division staff members who had experienced applied futures fluency as part of the UH Public Administration Certificate program.

The final consensus of the planning meetings stressed getting everyone in the division acquainted; getting them clear on common values and goals; and giving them an opportunity to express their individual opinions on what exactly a "healthy Hawai'i" meant. If in addition a more complete model of "Hawai'i as a Healthy Community" were produced, then that would be a fortuitous bonus.

An executive committee within the division was responsible for retreat planning. They periodically updated the division chief on their progress. The division chief was newly appointed, and the assistant division director was newly...
hired. She flew in from the mainland slightly before her job started explicitly to attend the retreat. Thus the two people who would be most appropriate as process champions were distant from the planning process, the former figuratively and the latter literally. Dr. Ichiho, at least, proved both interested and adaptable, given that the executive committee grafted the futures component onto his facilitation plans halfway through planning.

The new division chief and the planning committee supported the goal of true division-wide teambuilding by inviting the professional staff, the administrative and managerial staff, and the support staff all to take part. This resulted in a higher percentage of women attending than men. It also produced wide variation among participants with regard to professional and educational training and experience. Given that HPED does provide public outreach and education services for the Department of Health, many of the participants had group process experience, although very few had any prior experience with futures exercises.

The two-day retreat was held at the Hawai‘i Imin International Conference Center (the East-West Center’s Jefferson Hall). As a venue it was less than perfect. Each day began in plenary in the large, first-floor conference hall. HPED had reserved several smaller rooms within the building for small group discussions, but a retreat of 100 people breaks into eight discussion groups. Consequently, five of those groups remained within the conference hall, staking out various corners. With over 200 chairs arranged facing the stage, people
Table 18. Health Promotion & Education Division Workshop Organization

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>HEALTH PROMOTION AND EDUCATION DIVISION, State of Hawai‘i Department of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>To promote improved health for people, families, workplaces, and communities in the state</td>
</tr>
<tr>
<td>Why futures?</td>
<td>To create a division vision that dovetails into the &quot;Healthy Hawai‘i 2020&quot; plan</td>
</tr>
<tr>
<td>Workshop goal</td>
<td>Build team by developing common language, understanding; identify a common focus and mission; encourage staff enthusiasm for new plans</td>
</tr>
<tr>
<td>Process champion</td>
<td>NO (division chief acted more like a process detractor)</td>
</tr>
<tr>
<td>Diversity: culture</td>
<td>mixed local Asian and haole</td>
</tr>
<tr>
<td>gender</td>
<td>approximately 66% female, 33% male</td>
</tr>
<tr>
<td>age</td>
<td>ranging from 20 to 60</td>
</tr>
<tr>
<td>profession</td>
<td>approximately 50% professional; 25% support staff; 25% paraprofessional and other</td>
</tr>
<tr>
<td>education</td>
<td>from A.A. to M.D.</td>
</tr>
<tr>
<td>Group process experience</td>
<td>High among professionals; low among support staff</td>
</tr>
<tr>
<td>Futures experience</td>
<td>Low to none</td>
</tr>
</tbody>
</table>

Table 19. Health Promotion & Education Division Workshop Logistics

<table>
<thead>
<tr>
<th>LOGISTICS</th>
<th>HEALTH PROMOTION AND EDUCATION DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE: convenience, suitability</td>
<td>Poor: plenary room used for break-out groups first day; more than one group in a break-out room second day</td>
</tr>
<tr>
<td># of participants</td>
<td>approximately 80-100 (varied over the two days)</td>
</tr>
<tr>
<td># of facilitators</td>
<td>3 futures facilitators; one health facilitator</td>
</tr>
<tr>
<td>Workshop supplies available/adequate?</td>
<td>Yes: overhead, easel, newsprint, markers, tape</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>2 DAYS: 8:30 - 12:00; 1:30 - 4:30</td>
</tr>
</tbody>
</table>
had a hard time redistributing furniture to support small group discussions. Of
the other three groups who went upstairs, two had to share a meeting room
and suffer talking over one another.

In addition, the Imin Center’s most striking architectural feature is its use
of glass: two-story floor to ceiling windows on the ground floor, and floor to
ceiling windows upstairs as well. Working groups had little usable wall space
on which to tape their wallnotes. In rebellion, several groups decided to find
new space with walls in the basement. At the end of the conference, the
Center informed the planning committee that HPED would be charged for the
"rental" of the downstairs rooms.

The morning of the first day focussed on personal and intra-divisional
introductions. Dr. Ichiho led the first exercise of the retreat, a "problems-and-
strengths" brainstorming session. This not only served as a warmup, but also
as a compressed version of the "catharsis" and "past successes" exercises in
visioning. It was followed by an "emerging issues" lecture, after which the
group broke for lunch.

Dr. John Lewin, director of the Department of Health, delivered the
keynote address. Coming from one of the most futures-focussed, visionary
administrators in the State of Hawai‘i, this talk was peppered with the kind of
ideas the futures exercises were designed to generate. It also explicitly
provided a key component to futures facilitation: permission from the boss to
take time off to dream.
In the afternoon session of the first day, the group met as a whole for a brief explanation of the futures process and how it related to divisional goal-setting. This presentation ended with specific instructions for the goal definition exercise as well as the "Healthy Hawaii 2020" scenario building exercise.

Easels, newsprint pads, tape, and magic markers had been provided for each of the eight working groups, and their first task was to choose a group recorder to compile lists of goals and scenario details.

Participants were referred to their retreat information packets, which contained four worksheets for the futures facilitation exercises (Group Vision Development; Incasting on vision assumptions; From Here to There; and Where We Can Start). These worksheets gave specific instructions for individuals to follow and space to jot down their ideas, giving group members time to gather their own thoughts before being called upon to contribute to the group idea list.

Three futures facilitators coached the process, moving from group to group clarifying instructions and giving examples. The facilitators focused on keeping the group process on track, encouraging free-wheeling discussion, and restraining judgment calls. They also tried to push people's thinking through present assumptions about constraints, into hopes for the future that could translate into goals. If they had time, groups were also to prioritize goals.

The later afternoon was devoted to building a scenario from their hopes. People were asked to assume that it was 2020, and all the goals on their group list had been realized. They were then to imagine themselves living in that
### Table 20. Health Promotion & Education Division Workshop Process

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>HEALTH PROMOTION AND EDUCATION DIVISION, State of Hawai‘i Department of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up exercises</td>
<td>One, led by health facilitator</td>
</tr>
<tr>
<td>Emerging Issues presentation?</td>
<td>Yes, prior to lunch</td>
</tr>
<tr>
<td>Lag between presentation &amp; exercises</td>
<td>90 minutes</td>
</tr>
<tr>
<td>EXERCISES (minutes for each)</td>
<td></td>
</tr>
<tr>
<td>Identifying Change</td>
<td>---</td>
</tr>
<tr>
<td>Critiquing Implications</td>
<td>---</td>
</tr>
<tr>
<td>Imaging Difference</td>
<td>---</td>
</tr>
<tr>
<td>Visioning Ideals</td>
<td>Group Vision Development followed by incasting based on vision assumptions</td>
</tr>
<tr>
<td>Planning Achievement</td>
<td>From Here to There; Where We Can Start</td>
</tr>
<tr>
<td>Output (emerging issues, scenarios, vision, plan)</td>
<td>vision assumptions and details; timeline of events from vision back to present; suggested first steps for HPED</td>
</tr>
<tr>
<td>Any follow-up activities?</td>
<td>No</td>
</tr>
</tbody>
</table>

### Table 21. Health Promotion & Education Division Workshop Evaluation

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>HEALTH PROMOTION AND EDUCATION DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant response</td>
<td>Mixed: interest, enthusiasm, frustration, and skepticism</td>
</tr>
<tr>
<td>Ratio of ideas/participants</td>
<td>879/100</td>
</tr>
<tr>
<td>Transformed own organization</td>
<td>No</td>
</tr>
<tr>
<td>Transformed social structures</td>
<td>Yes; high</td>
</tr>
<tr>
<td>Transformed worldviews</td>
<td>Yes; moderate</td>
</tr>
</tbody>
</table>

190
"Healthy Hawaiʻi 2020," and tell everyone else what it was like. The worksheet for this section asked very specific questions as a means to widen group thinking about scenario details. At the end of the day, group participants voted on which three of their envisioned details were most critical to creating and maintaining Hawaiʻi as a healthy community.

The second day was designed to bring these dreams back to the concerns of the present. In the morning, the groups were asked to build a timeline backwards from their ideal vision of 2020. Studying the list of critical items they had chosen the previous afternoon, they asked themselves what had to occur to bring those details into existence. As this is a difficult exercise that makes extreme demands on both imagination and logic, and the participants were asked to complete timelines for as many of their critical items as possible, the entire second morning was spent on timeline construction.

During lunch, facilitators highlighted some of the more "reachable" precursor events on each group's timelines. Participants were instructed to design practical action plans they could implement tomorrow, if asked, that would lead to one of those precursor events. Furthermore, they were specifically asked to devise plans that would include cross-branch teams, drawing on different areas of expertise throughout the division. As facilitating this component required expertise in how the division and the Department of Health itself worked, Dr. Ichiho led the final afternoon's activities.
To complete the envisioning and planning exercises, group recorders met with Dr. Ichiho during the break to describe the action ideas that emerged. He summarized them and relayed them to the group as a whole. The retreat ended with an open comment-and-discussion session led by the Deputy Director.

This came close to defining disaster: a huge group of people, only three trained futures facilitators, and no trained recorders. This was compounded by the professional/administrative/clerical participant mix. While the participants perceived that as an interesting dynamic, and a strength, it added to the facilitation burden. Some people objected to the "lengthy instructions," while others did not understand what they were supposed to be doing. With facilitators splitting time among several groups, they were unfortunately not always available to give examples and answer questions as they arose.

The greatest damage to the workshop process, however, came from the new division head. She did not participate in the group exercises; instead, she drifted around, watching over people's shoulders, giving everyone the impression she was observing an experiment. Halfway through the first exercise, she objected in an aside to a facilitator, "this isn't working." Upon being reassured that from the futures perspective, it was working exactly as it ought, she added that she hoped that it was not going to end by asking people to suggest and commit to programmatic first steps. On learning that that was, indeed, the intention, she demanded an end-of-day-one debriefing and
restructuring session with the facilitators. She assigned the restructuring of the retreat's second day activities to the health facilitator. Dr. Ichiho softened the last exercise so that groups simply took an achievable goal from their timeline and suggested possible action plans to work toward the goal.

Because the original planning unravelled, the last exercise did not fulfill the need for closure as well as it might have. Reviewing the wallnotes from all eight groups shows that participants generated a lot of ideas. They also had no problem pushing the envelope either in terms of idealism or surprising possibilities. They had given themselves permission to dream with a vengeance; they just had nowhere to go with their dreams.

Although the most vivid and startling ideas involved technological fixes, much of what emerged suggested radical restructuring of community values and priorities. Unfortunately, people did not have an adequate opportunity to discuss how to link those value shifts to the present via a personal commitment. Several participants commented in disgust that once again the administration was tantalizing them with an invitation to envision a better future and frustrating them by cutting off any follow-up activities. In short, they concluded the two-day investment was a waste of time.

Despite these shortcomings, most participants were quite positive about the futures activities. The new assistant division director, unlike her superior, was interested and enthused about the process. In rating the day overall, 47 of 84 found it "interesting," 29 rated it "informative," and 15 found it "inspiring."
Only seven people thought that "their time would have been better spent at the office," and just one thought it all "confusing." In rating the day's activities, the visioning exercise was ranked highest among the activities, and the emerging issues presentation ranked highest among the speeches.

The second day's ratings were slightly lower, with more comments about "way out ideas that we can't use," and the impracticality of the future visions. Nonetheless, what people valued most by the end of the second day was the opportunity to share in a non-critical way; to hear everyone's ideas, not just the boss'; to network; to dream; to work informally and flexibly; to create new ideas in group sessions; and to be visionary.

More people would have found this workshop inspiring if the division chief had known more about the process, the facilitators had known more about the division, and everybody had been on board from the beginning of the planning process straight through to the workshop. The lessons here center on the organization. Facilitators should learn as much as possible about the organization beforehand, interviewing staff members before even beginning to plan the futures activities. Facilitators need to locate possible land mines of office politics, to clarify what the goals and expectations of the organization's leader are, and to identify a process champion -- or several.

Hawaii Teen Pregnancy and Parenting Council

If the previous case exemplifies disasters on a continuum of futures workshop experiences, the vision workshop for the Hawaii Teen Pregnancy and
Parenting Council was certainly the apotheosis. The HTPPC is a consortium of non-profit public advocacy groups, public agencies, churches and interested professionals that serves as a clearinghouse and coordinating body for issues centered on teen pregnancy. HRCFS staff initially thought that they merely wanted a neutral facilitator for a yearly action plan retreat. In the first planning meeting, HRCFS discovered the Council had renamed the activity an "advance," and a delightful meeting of minds occurred.

The Council already had a mission statement, but felt the need to revisit the assumptions on which it was based. The "advance" was meant to re-think Council activities in the face of change and to re-energize not only the group’s vision, but people’s commitment to that vision. Because the Council is a loosely organized aggregation of representatives from many local agencies and organizations, run by volunteers on what resources they can scavenge, the "advance" was modestly planned, taking only six hours.

Almost all of these people had served as health, psychological, or vocational counselors, and consequently the group as a whole featured huge resources in active listening, facilitation, and nominal group technique. They practically self-facilitated. Few were acquainted with applied futures fluency, however, in any form, and thus the facilitator’s primary role was explaining the futures exercises, offering provocations to push thinking farther into the future, and probing to elicit more detail.
**Table 22.** Hawaii Teen Pregnancy & Parenting Council Workshop Organization

<table>
<thead>
<tr>
<th>Organization</th>
<th>Hawaii Teen Pregnancy &amp; Parenting Council (voluntary professional organization)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>To disseminate information and support throughout existing agencies and professionals working with pregnant and parenting teenagers</td>
</tr>
<tr>
<td>Why futures?</td>
<td>Wanted an organization &quot;advance,&quot; not a retreat; wanted a new perspective on organization's goals and mission</td>
</tr>
<tr>
<td>Workshop goal</td>
<td>Evaluate accomplishments, renew goals for the future</td>
</tr>
<tr>
<td>Process champion</td>
<td>&quot;Advance&quot; Executive Committee</td>
</tr>
<tr>
<td>Diversity:</td>
<td>mixed local Asian and haole</td>
</tr>
<tr>
<td>gender</td>
<td>approximately 80% female, 20% male</td>
</tr>
<tr>
<td>age</td>
<td>ranging from 25 to 55</td>
</tr>
<tr>
<td>profession</td>
<td>civil servants; social workers; educators</td>
</tr>
<tr>
<td>education</td>
<td>from A.A. to M.D.</td>
</tr>
<tr>
<td>Group process experience</td>
<td>High</td>
</tr>
<tr>
<td>Futures experience</td>
<td>Low to none</td>
</tr>
</tbody>
</table>

**Table 23.** Hawaii Teen Pregnancy & Parenting Council Workshop Logistics

<table>
<thead>
<tr>
<th>Logistics</th>
<th>Hawaii Teen Pregnancy &amp; Parenting Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE: convenience, suitability</td>
<td>Near perfect: plenary room small, crowded, but cozy; small groups worked outdoors on shaded, breezy lanais</td>
</tr>
<tr>
<td># of participants</td>
<td>approximately 35</td>
</tr>
<tr>
<td># of facilitators</td>
<td>1 futures facilitator</td>
</tr>
<tr>
<td>Workshop supplies available/adequate?</td>
<td>Yes: easel, newsprint, markers, tape</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>8:45 - 12:30; 1:30 - 2:15</td>
</tr>
</tbody>
</table>
Working with the "advance" executive planning committee, the HRCFS designed the day as a classic visioning workshop. The Council's follow-up was prompt and efficient. They provided the logistical support, cannily scheduled it for a Friday and reserved the lanai of the Honolulu Yacht Club (sunny, green, and breezy). Wisely, the invitation suggested that people wear casual clothes and come with a playful attitude.

The advance began with a brief introductory session and the Net Weaving warmup exercise, performed out on the lanai proper. Participants then moved into a small meeting room off the lanai. Futures activities began with an elongated variant of Reverse the Negative. First, participants brainstormed a list of current problems. Old-timers with the group then offered a brief oral history of HTPPC successes. Using the successes as a bridge to optimism, the group worked to reverse their negatives list to define positive characteristics for their preferred future. To keep ideas flowing, the facilitator suggested emerging issues that might provide new opportunities and probed for greater detail.

The group of thirty or so then split into four groups which worked independently to refine the emerging picture of the Council’s preferred future. The groups reconvened, reported back to the group as a whole, and participants discussed the new contributions, highlighting by approbation items which really inspired people. After lunch, participants prioritized key goals, and worked to elaborate suggestions for immediate programs. Enthusiasm ran so high that people wrote their names and phone numbers next to specific action
### Table 24. Hawaii Teen Pregnancy & Parenting Council Workshop Process

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>HAWAII TEEN PREGNANCY &amp; PARENTING COUNCIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up exercises</td>
<td>Net Weaving</td>
</tr>
<tr>
<td>Emerging Issues presentation?</td>
<td>No (emerging issues used as provocations by facilitator)</td>
</tr>
<tr>
<td>Lag between presentation &amp; exercises</td>
<td>N/A</td>
</tr>
<tr>
<td>EXERCISES (minutes for each)</td>
<td>---</td>
</tr>
<tr>
<td>Identifying Change</td>
<td>---</td>
</tr>
<tr>
<td>Critiquing Implications</td>
<td>---</td>
</tr>
<tr>
<td>Imaging Difference</td>
<td>---</td>
</tr>
<tr>
<td>Visioning Ideals</td>
<td>Reverse the Negative; Group Vision Development</td>
</tr>
<tr>
<td>Planning Achievement</td>
<td>Where We Can Start</td>
</tr>
<tr>
<td>Output (emerging issues, scenarios, vision, plan)</td>
<td>Assumptions and details of vision; initial strategies to organize into a plan</td>
</tr>
<tr>
<td>Any follow-up activities?</td>
<td>Drafting vision; drafting mission statement; organizing planning activities</td>
</tr>
</tbody>
</table>

### Table 25. Hawaii Teen Pregnancy & Parenting Council Workshop Evaluation

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>HAWAII TEEN PREGNANCY &amp; PARENTING COUNCIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant response</td>
<td>Cheers; exhilaration</td>
</tr>
<tr>
<td>Ratio of ideas/participants</td>
<td>140/35</td>
</tr>
<tr>
<td>Transformed own organization</td>
<td>Yes</td>
</tr>
<tr>
<td>Transformed social structures</td>
<td>Yes; high</td>
</tr>
<tr>
<td>Transformed worldviews</td>
<td>Yes; moderate</td>
</tr>
</tbody>
</table>
suggestions as a sign of commitment. The day ended with an initial attempt at synthesizing a vision/mission statement.

The Council requested HRCFS’ continued assistance, in drafting the vision, coaching a task force through drafting a new mission statement, and offering suggestions on linking the new vision statement and mission statement to goals, objectives, tactics, and current programs. The vision statement and mission statement have subsequently been drafted (see Appendix B); the Council is still working, item by item, through its goals list, devising strategies.

This workshop very nearly exemplified perfect working conditions for applied futures fluency. It was organized by an egalitarian, horizontally managed group; they engaged the futures facilitator early in the planning process; they were very clear about goals and outcomes; they arranged an outstanding venue (the weather was good, too: sunny but cool and breezy); and participants on average boasted high group process and lateral thinking skills. The Hawai‘i Teen Pregnancy and Parenting Council began the visioning process with an advantage over many organizations: they already had team spirit. The Council exists because its members are united in working for better conditions for young parents and for children generally. That unity of purpose meant that they began their vision search as allies.

Without needing to jockey for position or prove themselves to one another, they could focus on the vision. The workshop design was very simple, and they generated a lot of high quality ideas in a limited time. One test of
organizational futures fluency is recognition that in the best of all possible worlds, the organization may no longer need to exist. The Council acknowledged that immediately, but went beyond it to ask how they would adapt even to conditions changing for the good by supporting young parents and children in other ways. Many groups, when first exploring possible preferred futures, place the burden of improvement on technological change; most of the vision details the Council imagined were shifts in social values that comprised an overall shift in worldview centered on health and healthy sexuality and parenting.

The success of this workshop reinforced several workshop design maxims, rather than teaching any new lessons (investment in failure is often de rigueur for new insights). First, reduce the hill of influence: for a group to work well together, people must meet as equals. Everyone must participate -- no "observers." Second, help people acquire good communications and group process skills. Third, focus participants on problems they all wish to overcome, so they are allies in a noble cause. Fourth, keep it simple. Of the five case studies, this agenda was simplest. The instructions were simple and the process required no preparatory lectures or background material. Elegant design is, in this case, effective design: welcome to the sixty-second vision workshop.
Pacific Basin Coastal Zone Management Conference '91

The Pacific Basin Regional Coastal Zone Management Conference is an annual event organized by the coastal zone managers of the American Flag Pacific Islands -- American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawai'i. In 1991, the American Samoa Coastal Zone Management program hosted the conference. They wished to scatter three or four workshops that promoted freewheeling discussion throughout three days of traditional paper presentations. The organizers requested input from HRCFS on injecting foresight, vision, and interactive creativity into their conference activities.

The futures focus was the brainchild of Richard Volk, a CZM program staffer, and he was certainly a process champion. He and the CZM program manager were intensely involved with workshop planning, discussing combinations of potential exercises and reviewing instruction sheets. They were particularly concerned that the exercises suit the Pacific context, and they specifically requested that one exercise involve potential CZM responses to global climate change and sea level rise.

The participants included coastal zone and environmental management professionals, representatives of environmental special interest groups, federal coastal zone management staff members, and representatives from other interested Pacific-focussed organizations. One of the latter, the Pacific Basin Development Council, supported the participation of HRCFS staff in the
conference. With this guest list, professional diversity was only moderate, but
cultural diversity was high: Micronesian island cultures, Polynesian island
cultures, mixed Asian American and European American cultures, and various
bureaucratic and corporate cultures. About two thirds of the participants were
male and one-third female. Experience with facilitated group process was
distributed unevenly, and experience with futures exercises almost nil.

The American Samoa Community College provided the conference
venue. Like the HPED retreat, this conference featured over a hundred
participants, and it would have helped to have more small group meeting
space. Also, HRCFS, through the Pacific Basin Development Council, was only
able to provide four staff members to support workshop activities. Of these,
only three had formal facilitation experience, so facilitators rotated the first day
through the five groups. On the second day, a science policy professional
interested in the futures approach and experienced in facilitation lent a hand.

Only the first two days of this three-day conference featured futures
workshops. They were held at the same time each day: one from 10:15 a.m.
to 12:00, and the second from 3:15 p.m. until 5:00 p.m. No warm-ups were
used, but the conference began with a plenary panel on “visioning our future;”
the first presentation focussed on futures thinking, and the second on emerging
issues.
Table 26. Pacific Basin CZM Conference Organization

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>'91 PACIFIC BASIN COASTAL ZONE MANAGEMENT CONFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>Allow American Flag Pacific Island Coastal Zone Management Program managers, related environmental professionals, and federal program officers to discuss current issues in coastal zone management</td>
</tr>
<tr>
<td>Why futures?</td>
<td>To provoke short-range-focussed managers into more creative, longer range, and idealistic thinking</td>
</tr>
<tr>
<td>Workshop goal</td>
<td>To consider long-range contingencies in coastal zone planning and to confront the various future situations 'the Pacific Way' might face</td>
</tr>
<tr>
<td>Process champion</td>
<td>Yes (Richard Volk, one of the conference planners/hosts)</td>
</tr>
<tr>
<td>Diversity: culture</td>
<td>Mixed Polynesian and Micronesian; Hawaiian Asian and haole; mainland east coast haole (federal)</td>
</tr>
<tr>
<td>gender</td>
<td>approximately 66% male, 34% female</td>
</tr>
<tr>
<td>age</td>
<td>ranging from 25 to 55</td>
</tr>
<tr>
<td>profession</td>
<td>administrators, civil servants, legal and environmental professionals, federal bureaucrats</td>
</tr>
<tr>
<td>education</td>
<td>from A.A. to M.D.</td>
</tr>
<tr>
<td>Group process experience</td>
<td>Moderate</td>
</tr>
<tr>
<td>Futures experience</td>
<td>Low to none</td>
</tr>
</tbody>
</table>

Table 27. Pacific Basin CZM Conference Logistics

<table>
<thead>
<tr>
<th>LOGISTICS</th>
<th>'91 PACIFIC BASIN REGIONAL COASTAL ZONE MANAGEMENT CONFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE: convenience, suitability</td>
<td>Good: large conference room for plenary and panel sessions, meeting rooms for small groups. Conference room seating was not movable.</td>
</tr>
<tr>
<td># of participants</td>
<td>84</td>
</tr>
<tr>
<td># of facilitators</td>
<td>4 (only 3 with experience), plus science policy professional who volunteered for the last three workshops</td>
</tr>
<tr>
<td>Workshop supplies available/adequate?</td>
<td>Yes: overheads, markers, transparencies</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>10:45 - 12:00, 3:15 - 5:00; 10:15 - 12:00, 3:15 - 5:00</td>
</tr>
</tbody>
</table>
The final conference design included two incasting workshops: 1) a classic incasting which divided people into five alternative future scenarios and asked them to describe the changed face of coastal zone management in each specific future; and 2) a focused incasting which considered two different sea-level rise scenarios and asked participants to imagine impacts and design possible governmental and programmatic responses. The latter exercise was basically an example of incasting used to critique and respond to implications of change. Both of these workshops were the first day.

On the second day, the workshops included 1) a brief foray into vision design for coastal zone management programs, and 2) a "where we can start" exercise. The vision design worksheet offered groups a variety of lateral thinking exercises to energize visioning: reverse the negative; imagine all constraints to ideal management were removed; imagine what could "never happen" to coastal zone management, and assume it happens; assume you are designing a CZM program from scratch; imagine and describe a perfect CZM system. After brainstorming the attributes of a preferred CZM program, participants then had fifteen minutes to compose a list of at least five measurable goals which could help attain the imagined "best CZM system."

The last workshop of the conference, a variant of the Where We Can Start exercise, asked participants to review their goals list, and suggest programs or projects that might achieve those goals. The worksheet directed them to elaborate where they would locate this program, what its immediate
objectives would be, who their allies might be, what resources they might round up in support of the program, and how they would engage the interest of decision-makers and political leaders. After each of the four workshop exercises, the conference as a whole reconvened so that the working groups could report back and discuss their ideas.

While not an unqualified success, neither was this conference a disaster. Participants particularly enjoyed the alternative futures incasting, and some very good ideas emerged during both the visioning and "where we can start" exercises. In order of popularity, an informal ranking would be alternative futures first, visioning next, where we can start third, and sea-level rise last. Where We Can Start was less successful because it invoked present-day problems, constraints, political tensions, and can't do mindsets.

The Where We Can Start variant ran aground on the shoals of politics, past history, and interpersonal dynamics. The goals and activities of the federal CZM program, and its management style, often conflict with the CZM programs in the American Flag Pacific Islands. Strong tensions result from the fact that the federal program provides much of the funding for these local programs. Between those tensions and the "yes, but..." comments of old-timers who have tried everything once and seen it all fail, translating goals into methods and programs was difficult for some groups.
### Table 28. Pacific Basin CZM Conference Process

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>'91 PACIFIC BASIN REGIONAL COASTAL ZONE MANAGEMENT CONFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up exercises</td>
<td>No</td>
</tr>
<tr>
<td>Emerging Issues presentation?</td>
<td>Yes</td>
</tr>
<tr>
<td>Lag between presentation &amp; exercises</td>
<td>About 1 hour</td>
</tr>
<tr>
<td>EXERCISES (minutes for each)</td>
<td></td>
</tr>
<tr>
<td>Identifying Change</td>
<td>---</td>
</tr>
<tr>
<td>Critiquing Implications</td>
<td>Planning for Climate Change (105)</td>
</tr>
<tr>
<td>Imaging Difference</td>
<td>Alternative Futures I: Different Communities, Different Lifestyles (75)</td>
</tr>
<tr>
<td>Visioning Ideals</td>
<td>Group Vision Development [variant] (75)</td>
</tr>
<tr>
<td>Planning Achievement</td>
<td>What We Can Do Now [variant] (105)</td>
</tr>
<tr>
<td>Output (emerging issues, scenarios, vision, plan)</td>
<td>Details from alternative scenarios; vision details; goals/methods suggestions</td>
</tr>
<tr>
<td>Any follow-up activities?</td>
<td>No</td>
</tr>
</tbody>
</table>

### Table 29. Pacific Basin CZM Conference Evaluation

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>'91 PACIFIC BASIN REGIONAL COASTAL ZONE MANAGEMENT CONFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant response</td>
<td>Positive: interesting, challenging. Some frustration with instructions (sea level rise) and group dynamics</td>
</tr>
<tr>
<td>Ratio of ideas/participants</td>
<td>418/84</td>
</tr>
<tr>
<td>Transformed own organization</td>
<td>Yes; moderate</td>
</tr>
<tr>
<td>Transformed social structures</td>
<td>Yes; high</td>
</tr>
<tr>
<td>Transformed worldviews</td>
<td>Yes; moderate</td>
</tr>
</tbody>
</table>
The sea-level rise exercise presented the most methodological and conceptual difficulty. First, response and amelioration planning for sea level rise is a complex issue, ill-suited to problem-solving within the space of an hour and a half. Second, global climate change and sea level rise are conceptually complex and the instruction sheets for this exercise mirrored that. This exercise was neither elegant nor effective.

The failings of these exercises reinforce the lessons of success from the Hawai‘i Teen Pregnancy and Parenting Council. Both the exercises that were less successful occurred at the end of a long day, when people were tired. Both required complex organizational thinking. The sea-level rise exercise had three pages of information and instructions. Where We Can Start required a positive frame of mind and, as it turned out, good communications skills. These demands were too much that late in the day.

Simplicity is key to creative focus. Participants need to free mental space to build innovative connections among ideas; if their energy and thoughts are consumed by an effort to absorb and unravel complex instructions, they will lose creative momentum. Simple, step-by-step instructions linked to examples, or better yet, a short, interactive walk-through of the exercise keep energy levels focussed on the process. In addition, exercises should focus on manageable, clearly defined topics -- sea level rise, NO; enhanced storm surge, YES -- and work through them using only one or two basic steps.
Office of State Planning

In August 1991, the Office of State Planning (OSP) of the State of Hawai‘i engaged the HRCFS to assist in developing a scenario-design component for OSP’s ongoing Environmental Scanning Project. In this project, volunteer readers generate scanning reports which identify potential emerging issues and trends of interest to state government. OSP schedules monthly meetings to discuss the emerging issues nominees. Based on these discussions, OSP staff members produce a monthly report which is distributed to the Governor and Cabinet members.

OSP Scanning Project staff initially asked HRCFS to organize a scenario-building workshop which would help OSP use the emerging issues and trends from the scanning effort to create alternative scenarios of Hawaii’s future. In working out the details of the scenario design process, another OSP group, the Strategic Planning team, also expressed interest in the project. Strategic Planning wanted to coordinate its own efforts towards developing a "preferred future" for Hawaii’s economic development with HRCFS and the Scanning Project. The Strategic Planning process had already begun with focus group meetings to identify critical economic issues for the State and to suggest characteristics for Hawaii’s preferred economic future.

OSP staff proposed uniting the focus group critical issue/preferred future activities of Strategic Planning and the scenario-building process requested by the Scanning Project into a three-phase endeavor culminating in a final "plenary"
workshop. The focus group explorations of critical economic issues facing Hawai’i became Phase I of the overall project. The activities surrounding the scanning/scenario-building efforts became Phase II. The plenary visioning workshop became Phase III.

Plans for the scenario-building workshop called for participation of members of the Scanning Advisory Board, selected representatives from the focus groups (from Phase I), and the OSP Environmental Scanners -- numbering a total of thirty people. Prior to the workshop, HRCFS members identified a number of key "macro-trends" emerging from the two years of monthly scanning reports produced by the Environmental Scanning team. Combinations of these "macro trends" served as the starting provocations for four discrete alternative futures scenarios.

OSP also requested that the process integrate the critical issues identified in the Phase I focus groups with the scenario-building process. Accordingly, the process as designed requested participants to describe how each critical economic issue played out within the context of the scenario they had just designed.

The workshop was held in OSP offices on the afternoon of October 16, 1991. After an introduction and explanations, the participants, HRCFS facilitators, and recorders separated into four groups and went off to different rooms. Each group "got to know" their future by reviewing the macro-trends and subgroupings of contributing issues and developments. Facilitators then
### Table 30. Scanning Project Workshop Organization

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>SCANNING PROJECT/STRATEGIC PLANNING OFFICE, Office of State Planning (Hawai’i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>Short-range and strategic planning for the State of Hawai’i</td>
</tr>
<tr>
<td>Why futures?</td>
<td>To integrate emerging issues and alternative scenarios more effectively into the State’s planning process</td>
</tr>
<tr>
<td>Workshop goal</td>
<td>To create alternative scenarios for Hawai’i’s future based on Scanning Project trends; to develop details for a vision of the State’s preferred economic future and strategies as well.</td>
</tr>
<tr>
<td>Process champion</td>
<td>Several: Ruby Edwards, Julie Cachola, Rocky Fineseth, and Heidi Meeker, planners; Harold Masumoto, Director, OSP</td>
</tr>
<tr>
<td>Diversity:</td>
<td>culture mixed local, local Asian, and haole</td>
</tr>
<tr>
<td></td>
<td>gender approximately 60% male, 40% female</td>
</tr>
<tr>
<td></td>
<td>age ranging from 25 to 55</td>
</tr>
<tr>
<td></td>
<td>profession planning, government, business, academia</td>
</tr>
<tr>
<td></td>
<td>education B.A. to Ph.D.</td>
</tr>
<tr>
<td>Group process</td>
<td>Mixed moderate</td>
</tr>
<tr>
<td>Futures experience</td>
<td>Low to none</td>
</tr>
</tbody>
</table>

### Table 31. Scanning Project Workshop Logistics

<table>
<thead>
<tr>
<th>LOGISTICS</th>
<th>SCANNING PROJECT/STRATEGIC PLANNING OFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE:</td>
<td>OSP conference/meeting rooms; Kapiolani Community College Ohelo Dining Room and surrounding classrooms</td>
</tr>
<tr>
<td># of participants</td>
<td>30/40</td>
</tr>
<tr>
<td># of facilitators</td>
<td>4 facilitators, 4 recorders; 5 facilitators, 5 recorders</td>
</tr>
<tr>
<td>Workshop supplies available/adequate?</td>
<td>Yes: newsprint, tape, magic markers; easels, newsprint, tape, magic markers, computer, printer, photocopier</td>
</tr>
<tr>
<td>TOTAL TIME</td>
<td>12:30 - 4:30; 8:45 - 12:00, 1:00 - 4:00</td>
</tr>
</tbody>
</table>
requested that people imagine a future driven by these macro-trends. The group sketched out the characteristics of their future by brainstorming the "cross-impacts" of each of the macro-trends upon the others. That is, they were asked to imagine what the impact of one trend might be on, or in combination with, the other two trends.

After filling out their "cross-impact" matrix, facilitators led participants in another round of brainstorming to describe the form and functioning of a range of social structures (e.g., work, education, religion, relationships) within their emerging scenario. The last small group exercise asked participants to imagine how the critical economic issues identified by the focus groups would look in their new scenario. After completing this, all the workshop participants reconvened for a brief summary session.

The HRCFS workshop facilitators took the materials generated during the workshop and created scenario narratives. For each group's scenario, they drafted 1) a narrative description, beginning with an introduction explaining which macro-trends the working group used and what time frame bounded their scenario; 2) a transcription of their cross-impact matrix; and 3) a "cartoon sketch" expressing more vividly some key characteristics of the scenario. For comparison, facilitators also constructed a matrix illustrating differences among these scenarios across different aspects of society.

For the Phase III plenary session, OSP reserved the Kapiolani Community College dining facility for an entire Saturday. The plenary workshop
Table 32. Scanning Project Workshop Process

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>SCANNING PROJECT/STRATEGIC PLANNING OFFICE, Office of State Planning (Hawai‘i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up exercises</td>
<td>None for Scenario Building; Reverse the Negative used as a warm-up for the Plenary Workshop</td>
</tr>
<tr>
<td>Emerging Issues presentation?</td>
<td>Emerging issues identified by Scanning Project described at start of both the Scenario Building Workshop and the Plenary Workshop</td>
</tr>
<tr>
<td>Lag between presentation &amp; exercises</td>
<td>N/A</td>
</tr>
<tr>
<td>EXERCISES (minutes for each)</td>
<td></td>
</tr>
<tr>
<td>Identifying Change</td>
<td>(Two years’ worth of emerging issues identification by participants fed into the workshop exercises.)</td>
</tr>
<tr>
<td>Critiquing Implications</td>
<td>Cross-Impact Matrix (30 minutes)</td>
</tr>
<tr>
<td>Imaging Difference</td>
<td>Incasting (social structures: 30 minutes; critical economic issues: 60 minutes)/Alternative Futures: Economic Issues in Alternative Hawai‘i’s (90 minutes)</td>
</tr>
<tr>
<td>Visioning Ideals</td>
<td>Group Vision Development (75 minutes)</td>
</tr>
<tr>
<td>Planning Achievement</td>
<td>Where We Can Start: Strategies (120 minutes) and Prioritization (30 minutes)</td>
</tr>
<tr>
<td>Output (emerging issues, scenarios, vision, plan)</td>
<td>alternative scenarios; vision details; plan components</td>
</tr>
<tr>
<td>Any follow-up activities?</td>
<td>Yes; review of documents produced from analysis and synthesis of output</td>
</tr>
</tbody>
</table>

Table 33. Scanning Project Workshop Evaluation

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>SCANNING PROJECT/STRATEGIC PLANNING OFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant response</td>
<td>Positive: interesting, challenging, fun; Mixed: interesting, fun, too complex, frustrating</td>
</tr>
<tr>
<td>Ratio of ideas/participants*</td>
<td>270/30</td>
</tr>
<tr>
<td>Transformed own organization*</td>
<td>N/A (many organizations represented)</td>
</tr>
<tr>
<td>Transformed social structures*</td>
<td>Yes; high</td>
</tr>
<tr>
<td>Transformed worldviews*</td>
<td>Yes; high</td>
</tr>
</tbody>
</table>

*For scenario-building process only; plenary workshop output was voluminous and is still being processed by OSP.
participants included focus group members, scanners, Scanning Advisory Board members, representatives from state agencies, the counties, non-profit organizations, and the university. Attendance was lowered by competition: the two-day Environment Hawaii workshop schedule overlapped the Plenary Workshop, and many people were invited to both.

The Plenary Workshop agenda was long and quite involved; each participant received a folder with over twenty pages of instructions and supporting material. Although the day began with everyone gathered in the Ohelo Dining Room, participants were seated at dining tables by working group. The working groups were each assigned two or three critical economic issues, as defined by the Phase I focus groups. The goal was formulating strategies that would steer those issues away from negative scenarios and towards the outcomes specified by the group’s vision of a preferred economic future for Hawaii’i.

A gallery of newsprint sheets displayed the draft vision statement composed of the initial vision characteristics from the Phase I focus groups. Reverse the Negative served as the warm-up: participants were asked to jot down one or two of their worst fears for Hawaii’i’s economic future and reverse them to generate positive statements. With these and their own ideals in mind, groups reviewed and discussed the draft vision statement, offering additions.

The coffeebreak was used to prioritize the critical components of the draft vision via a straw poll. People milled around the newsprint sheets and
stuck colored dots on items they felt best expressed their vision for the future of Hawai‘i. While the workshop activities moved on to review the alternative possible futures for Hawai‘i, OSP staffed tallied the dots, and drafted, printed out, photocopied, and distributed those vision elements participants felt were most worth further work.

After the coffeebreak, HRCFS staff presented each of the alternative scenarios created by the Phase II scenario building workshop. The working groups then moved to separate meeting rooms. Equipped with a matrix that compared outcomes for their assigned economic issues across the four possible scenarios, each group was asked to rate which scenario gave the most positive, and which the most negative, outcome for each critical issue. The exercise with the scenarios was designed as a provocative warm-up for articulating the absolute worst, and the absolute best, outcomes they could imagine for their two or three critical economic issues.

These activities absorbed the time up until lunch. By the time everyone had eaten, the OSP staff had completed and distributed the list of vision elements which the group had voted best expressed a preferred economic future for Hawai‘i. People took this list back to their working groups, and used it as a reminder of goals and priorities during the strategic planning sessions of the afternoon. The afternoon activities were an extended variant of the Where We Can Start exercise.
Each group had three basic assignments for the afternoon: 1) identify strengths and weaknesses within the state of Hawai’i that would affect resolution of the assigned critical economic issue; 2) brainstorm a list of incentives, projects, actions that would act to create the preferred outcomes for each critical economic issue; and 3) prioritize the strategy list. The last task asked people to vote for the most critical short-term strategy, the most critical long-term strategy; the easiest strategy to implement; and the least costly to implement. The workshop then reconvened in plenary to discuss the reports from each working group.

Greg Pal, the coordinator of OSP’s Strategic Planning Unit, was particularly pleased with the Plenary Workshop process, as was Julie Cachola. Ruby Edwards was disappointed in the unevenness of the facilitation, which was also a complaint that Heidi Meeker and Rocky Fineseth expressed regarding the scenario building workshop. Everyone agreed, however, that both the scenario workshop and the plenary workshop were extremely fruitful in terms of ideas. If anything, they were too productive: both OSP and HRCFS staff struggled to organize and synthesize the output into useful form.

Participants also enjoyed both sessions. One commented, in a curiously pleased tone of voice, that he had expected the scenario workshop to be interesting, fun, and challenging, but that he had not really anticipated what hard work it would be. Plenary Workshop participants were generating a lot of energy until called upon to work with the matrices comparing their group’s
critical economic issues across four alternative scenarios. This was a complex
task, requiring that they stop, read, and absorb in the midst of an otherwise
interactive day. It was not very well integrated into the process conceptually,
and several of the facilitators found it confusing. That dimmed the energy levels
before lunch.

Lunch was superb: great food and an amazing view out over the
channel to Moloka‘i. Unfortunately, it relaxed everyone, lowering energy even
more. The afternoon activities were really the tough thinking work of the
plenary workshop, and by mid-afternoon everyone including the facilitators were
experiencing difficulty keeping on task. Nonetheless, people completed their
assignments, and listened with interest, amusement, and amazement to each
group report. The conference ended on a positive note, but was very tiring.

In the scenario building workshop, two of the working groups proved that
people engage a complex process quickly provided that the facilitators 1) know
the process cold; 2) break it down into simple tasks; and 3) focus the group’s
attention on one task at a time. In the other two working groups, facilitators
were unsure how best to use the cross-impact matrix to generate provocations
and ideas. The snag in the scenario building workshop was the facilitator
training. Although all the facilitators were futures researchers, the coordinating
facilitator (i.e., me) should have ensured that their understanding of the
workshop design and each task was more than theoretical by scheduling a dry-
run in-house to account for questions and confusions.
This same problem occurred with the plenary workshop, compounded by its greater length and complexity. By late afternoon even the designers were forgetting details. But the plenary workshop also suffered severely from trying to stuff too many activities into too little time. In defense of the HRCFS staff, they did point this out time and time again, and in fact the agenda as implemented represented a reduction in activities. Not only did the time/task compression render explanations sketchy, it allowed little time for discussion or debriefing after each exercise. Participants would have been more satisfied, more comfortable, and possibly more productive if OSP had scheduled the plenary workshop activities over two days.

Two critical lessons emerged from these pilot efforts with the Office of State Planning. Applied futures fluency is a risky, unfamiliar, and occasionally complex process which facilitators teach participants on the fly. In order to be successful, the facilitation team must have a uniform understanding of the workshop’s goals, activities, instructions, and background material; practice sessions would enhance the team spirit and energy the facilitators display.

Second, always add time to agendas; never pare down the time allotted to exercises, breaks, or discussions. If possible, allocate extra time for breaks between exercises, to give people time to debrief, reassure each other, and perhaps generate even more ideas. Participants need time to interact with each other, the instructions, the background materials, and the very ideas they are generating -- give it to them.
LESSONS LEARNED

This final section summarizes the lessons learned from these five case studies. To organize the summary, the conclusions are grouped by the same parameters used to compare the cases: organization, logistics, process, and output evaluation.

Organization

When designing a futures workshop, facilitators must do their homework with respect to the agency, organization, or community with which they are working. Before starting the planning process, find out as much as possible about organization. Why was it formed? What are its core values? Why the desire for a futures focus? Talk to the bosses and elicit their expectations and goals for the process. Find a process champion -- preferably the highest ranking person involved with the futures process.

Interview people on the planning committee and get a feel for the community dynamics: identify political tensions, areas of contention and controversy, or areas of agreement and joint concerns. Does the group already feel united in service to something? If so, that will make self-inspiration easier. Who are the problem people? Separating them during the workshop can stop potential group process problems before they start.

Logistics

The workshop venue should provide space that is intimate and comfortable but not crowded. Since workshops often combine presentations...
with individual work, small group work, and plenary sessions, the ideal situation is one large room with furniture that is easy to move, and several smaller rooms nearby. Refreshments and meal service should also be nearby so that breaks for coffee and meals are convenient. The ideal facility is flexible, modular, and easy to rearrange; includes adequate break-out space; and offers easy access to the green outdoors for breathing space during breaks.

Allocating generous amounts of time is essential. Small groups can work quickly, but with any number of people over fifteen, time becomes a strategic resource. If participants work quickly and the workshop runs ahead of schedule, that's a bonus: people can use the extra time to discuss some ideas in greater depth. The more time people have to get comfortable in the future, the greater their sense of accomplishment and closure will be when the workshop ends.

**Process**

Applied futures fluency uses emerging issues presentations as creative provocations for imaging difference. As such, they are best scheduled right before exercises, or else used in short form as probes and provocations during exercises. Because emerging issues and alternative scenarios take people into unaccustomed mental spaces, facilitators must elicit agreement from participants that they will suspend their disbelief regarding possible futures. It has been suggested that participants begin futures workshops by hanging disbelief in effigy. On a related note, because the idealism of vision can also
seem fantastic and unreachable, workshop designers should reinforce the group’s sense of efficacy by including an opportunity for the community or organization to remember its past successes.

In terms of exercises, simple is better -- elegant is effective. Do not overwhelm participants with overly complex exercises; break complex processes down into simple tasks. Allot sufficient time for questions and explanations: go slow to go fast. Support group energy and interaction by avoiding lectures. Relay instructions by examples, or better yet, walk participants through a short demonstration of an exercise as an interactive example.

Flatten any incipient hierarchies by treating all participants as equals and demanding that everyone attending participate -- NO "observers." To control potential burrs in group communication and dynamics, each working group should have its own neutral facilitator and recorder. But train and rehearse those facilitators for each specific workshop to develop a team style and approach to the exercises.

**Evaluation**

Evaluation powers improvement. Facilitators should request all participants to evaluate the presentations, materials, exercises, facilitators, outcomes, and their general satisfaction with the process. An ideal mode for evaluation is dialogue or open discussion with the participants. The best approach, although time intensive, is to pause throughout the workshop for
expectation checks: how we doin' so far? Are we playing by the outcomes, agendas, roles, and rules we all agreed on initially? Only if the participants are actively and equally engaged in evaluation will they participate fully in futures fluency as research.

Any evaluation forms should include demographic data so that designers can learn to tailor workshop designs more effectively. As workshops often end in a rush, evaluation forms with self-addressed, stamped envelopes attached are useful. Participants can mail evaluations in after a day or so when all the ideas and activities have percolated through their minds.

Workshop designers and futures researchers should also devise analytical frameworks for comparing output. The crude content analysis performed on the products of these case studies needs refining. How do we codify expert futures opinion such that output analysis can be reliably repeated?

Coda

The analysis of the Hawaii Teen Pregnancy and Parenting Council workshop characterized it as nearly perfect. It achieved this encomium primarily due to participants’ advanced group process skills. A perfect futures workshop would require participants who not only have good group process skills, but who are also futures fluent.

A benchmark experience actually exists for the "perfect" futures workshop. In order to refine, expand, and critique the scenarios emerging from his dissertation research, Dr. Christopher Jones invited the loosely organized
community known as the "Manoa School of Futures Studies" to incast a handful of futures scenarios with particular attention to humanity's relationship with Gaia. The resulting scenarios depict not only the structures of government, the economy, education, family and community life, and community infrastructure, but also vices, epistemology, tragic flaws, and myths. The skills common to participants were group process, critical thinking, and futures fluency: a familiarity and facility with thinking about alternative futures. Practice makes perfect.
NOTES


2. Ibid., 103.

CONTINUING RESEARCH

While certainly intellectually exhilarating to spot an interesting nexus among several fields of study, it is also daunting to realize how far the connections extend into the sea of academic endeavor. These pages have invoked history, critical theory, deconstructionism, leadership studies, management, futures research, group dynamics, lateral thinking and the ability to draw stick figures. The result generates more questions than it answers. The following paragraphs suggest areas for further research.

The first and most obvious strategy for continued research is to check back with participants and find out if, and how, they are using the workshop output. The Hawaii Teen Pregnancy and Parenting Council, being the masters of interpersonal relationships that they are, have not waited for me to ask, they just send minutes of the meetings that describe their progress in building a strategic plan from their vision and strategies brainstorming. The Office of State Planning had a bale of tearsheets, wallnotes, and commentary to wade through, but as they organize the ideas, they have sent draft "economic visions" to participants for review. The impacts of these planning efforts will take several years to play out. Empowering people to vision resembles forestry -- witnessing the yield requires patience.
Given patience, another interesting offshoot of applied futures fluency would be "T_1-T_2" studies, designed specifically to check on the impacts of a futures workshop for participants' activities over time. Such a study might include monitoring commitment to action plans: how quickly did participants implement ideas? did the action momentum initiated by the workshop flag? Applied futures fluency purports to teach people to think more creatively about the future. Is it possible to operationalize that idea, and measure improvement over time?

Energetic workshops will result in bales and bales of newsprint covered in words, sketches, and diagrams. What frameworks for content analyses could futures researchers usefully apply? If old-fashioned, researchers could opt for empirical analyses of the types and frequency of certain futures characteristics in the output. The concept of "degree of difference" sorely needs refining and articulating into a more transferable interpretive framework. More avant-garde output analyses could invoke critical theory, literary criticism, or deconstruction. Futures workshops can only begin to crack constraints on participants' thinking; analyzing the output in a hunt for what conceptual constraints remain would help facilitators consciously address those mindlocks in the next workshop.

The discussions of workshop evaluation pointed out that descriptive data about participants might clarify who in our society thinks what about the future. This relates to the idea of constraint cracking: do certain biases, constraints,
and worldviews exist among given communities of participants? A simple socioeconomic analysis of the demographic constitution of a workshop group might reveal interesting connections to kinds of output and types of futures thinking.

The introduction to Chapter Six highlights perspectives on how people think. From the facilitator's perspective, constantly striving to enhance participants' mental flexibility, adaptability, and creativity, useful research would explore relationships between futures fluency and cognitive styles. How do the different learning/thinking/problem solving styles overlay onto the elements of futures fluency? I.e., if you were assembling a "learning organization," or the ultimately futures fluent cabinet, how would you compose the team?

Gappert, at the University of Akron's Institute for Futures Studies, is already pursuing links between Meyers-Briggs personality types and scenario building; researchers at Design for Leadership have begun to map out which of the personality types is most comfortable with what component of futures fluency. The same sort of correlations could be explored, using David Kolb's problem-solving styles, or Gardner's multiple intelligences.

Chapter Six suggested links between lateral thinking and futures fluency, and just as lateral thinking teaches people consciously to use the different thinking styles of which they are capable, each of the research projects suggested above would help participants explore their own inner capabilities and potential. Such research might enable people to spot gaps, weakness or
stiffness in their own thinking, and plan to exercise and stretch to improve their cognitive capabilities.

ENHANCING LEADERSHIP

Upgrading Managers to Leaders

Around the time the United States of America was founded, political leaders were getting a very well-rounded education indeed. Many of the revolutionaries in North America were the colonial equivalent of "lords of the manor," and as such were well schooled: this in possibly the last century when human knowledge could still be encompassed by one person. The academic disciplines were less separated, and could in any case be united within the student. It is no wonder that when the best and brightest of these folks got together to write the Declaration of Independence and the Constitution, they produced not only sensible, but also elegant, articulate, and visionary documents. That was the past.

Today's political elites -- like today's followers -- are educated in some specialty. Even their initiatives are fragmented into the specialties of their various staff members. Yet increasingly the problems they face involve intertwined, complex systems taken as a whole. Our political elites analyze and respond to situations along the axis of their given specialty, and we vote for them on that basis (domestic economy; foreign affairs; labor; taxes; education). Meanwhile, their blindness to the other axes threading the global system skews
their responses, feeding more error into global interrelationships and exacerbating problems.

In the conclusion to *Politics as Leadership*, Tucker suggests that now, as the people elected to define and solve problems fail to do so -- fail to lead -- that an informal, international community of people has emerged who do see the systemic, pervasive nature of the problems facing the planet. They share "the vision of a world in transition and the will to do all they can to assist the transition to occur."

Who are these people? The best of them are the renaissance minds of our age, the thinkers drawn to the systemic overview, the deep understanding and the breadth of detail; often they have advanced degrees in the hard sciences linked with personal avocations in the humanities. But the leisure time it takes to absorb this dense weave of human knowledge leaves little time for political ambition and activities, and they are rarely political leaders by personal design, although their expertise may make them political elites. Tucker suggests that they will define the problems we face today, and articulate solutions -- that they are, in fact, doing so now.

People of this caliber may not wish to take on the day-to-day responsibilities of political leadership. Yet this breadth, this sweep of vision, complexity and flexibility of understanding, is important now and will be important for the leaders of the future. Educational programs can be revamped to provide leadership training at primary, secondary, and college levels that will
lead to more integrative, anticipatory thinking on the part of future leaders. But in the meantime what do we do with people already in office? Possibly the best way to retread futures dead-heads among politicians would be the offering of exclusive, intensive, one-week "Leadership, Creativity, and the Future" workshops.

Such workshops would focus on three basic techniques, all of which have already been documented, taught, and have demonstrated usefulness in policy-making: group process skills, including facilitation and mediation; lateral thinking; and futures fluency. The first would help policymakers communicate and negotiate with constituents, other policy-makers, and opinion leaders. It would also encourage a participatory approach to problem definition and problem solving. The second offers applied creativity as a tool for rethinking specific problems, and formulating new strategies to ameliorate them.

Finally, futures fluency would teach policymakers three habits. First, visioning teaches them to articulate their own values and preferences for the future. Second, they can explore participatory approaches to eliciting the preferences of their constituents; this process will reveal conflicts over certain aspects of the future among the various groups that comprise their constituencies. Third, the envisioning process requires that they consider what implications the secondary and tertiary effects of policy decisions have for those conflicting preferences. Techniques exist for rating preferences to determine
grounds for negotiation and to identify possible options for trade-offs. All this could be included in the workshop curriculum.

This is not meant to be a syllabus, just a short description of one strategy to reach today's politicos and shake their minds loose a little from the normal tracks of economic and administrative thinking. It is all well and good to design the perfect college curriculum to train the leaders of tomorrow, but we've got to get there with the current power crowd in the driver's seat -- we need to consider how to improve their navigational skills.

5 Billion Leaders: A Vision for the Future

A professional facilitator once told me that as a panacea for workshop performance anxiety she would remind herself before walking into the room what incredible potential for creativity, humor, and constructive activity the people inside represented. I would like to take that as a synecdoche for the human race.

The problem, of course, is that most people are too entangled in the responsibilities, crises, and small pleasures of daily life to achieve their potential for creative leadership. In addition, history, our educational systems, the media, and most societies discourage individuals -- everyday people -- from imagining that they could exert leadership. Leaders, our upbringing tells us, are extraordinary people, charismatic people, unusually intelligent people -- or simply unusually rich, born either to power or money or both. These are lies.
Everyone has the capability to lead. Perhaps not the interest or commitment to lead a national or global movement, but certainly the ability to exert leadership at the community, organizational, or personal level. Leadership is both an art and a skill, a creative act to which people can aspire, like any other creative act. Like many other crafts, some people by nature or nurture will seem gifted with more of the arts and skills that make a great leader. Nonetheless, many of the skills of leadership are merely skills, and as such are teachable.

This study argues that the dynamic heart of leadership is vision, an idea of a preferred future, which calls the leader to action, and when communicated with others, calls them to action as well. This vision may be implicit and vaguely articulated, or explicit and consciously described in detail, but it offers the hope of solution to present problems. Just developing the vision does not make a leader; leaders also communicate the vision, engage others in its creation, and, perhaps most importantly, invest it with passion. Passionate belief in a vision, sheer bloody-minded enthusiasm, generates more support than the most logical of arguments. Leaders have unflagging belief not so much in themselves, but in the vision.

The passion and belief each individual must find within themselves; visions they can learn to create. What is more, people can learn to create visions as a community. This holds great hope for a peaceful tomorrow. Upon returning from an international futures seminar, one of the futures faculty
reported a Serbian participant's comment that she had for the first time realized that the great problem was not to redress the grievances of the past, but to envision a sustainable -- culturally as well as environmentally and economically -- future.4

To create that sustainable future, and to make it challenging, funny, aesthetically pleasing, affectionate, adventurous, and culturally diverse, we must use all the creative potential implicit in the peoples of this world. Thinking and doing, we must encourage ever more open, flexible, creative, and empowering ways of working and playing with each other. This means moving everyone from the past to the future; from ideology to vision; and from followership to leadership.

Figure 17. Dimensions of Participation
NOTES


2. Ibid., p. 133.


4. Personal conversation with Dr. Sohail Inayatullah, June 1993.
APPENDIX A
ACQUIRING FUTURES FLUENCY:
Workshop Design, Sample Workshop Agendas,
and Collected Exercises

PLANNING AND PREPARATORY CONCERNS
The following paragraphs provide an initial guide to planning and preparing a futures workshop. The basic preparatory requirements include defining goals, choosing a process champion, eliciting participation, identifying resources, organizing logistics, and designing a basic agenda. Following this basic checklist creates a structure within which the creative, substantive content of the workshops can materialize, rather in the way buying, stretching, and whitewashing a canvas prepares it for painting.

Goals
Planning a futures workshop begins with reviewing the participants’ goals and expectations for the workshop. Limit people to manageable, focussed goals. The workshop can explore how some policy decision might play out across different futures; it can imagine different future scenarios for the community as a whole; or it can initiate creation of the community’s vision or mission. But any workshop will work best if participants define closely what it is they want to consider and discuss.

A one or two day workshop will establish a foundation for futures fluency, but remember that the most useful product of the workshop is the process itself. The workshop initiates futures fluency within the organization; the organization must then maintain and enhance its skills in futures thinking through practice. Futures fluency may not solve immediate crises -- although it may contribute to their solution -- but it can guide your intermediate and long-range planning efforts.

The futures workshop is a means to generate creative and innovative ideas about your community, to rediscover and redefine a mission and purpose for your community or organization, and to generate enthusiasm and excitement in residents, various stakeholders, and organizational staff. In order to develop futures skills, establish and polish long-range vision, and maintain those levels of creativity and excitement, the workshop is best planned as the kick-off event in an ongoing futures effort.
Leader/Champion
Enlist the aid of a community opinion leader to spearhead the planning effort, to encourage participation and commitment, and -- most importantly -- to legitimate the process. Most people are judged professionally by their ability to solve problems and handle crises. We are socialized from an early age to avoid daydreaming. Yet futures fluency is about daydreaming productively and effectively. People will be more willing to let their repressed imaginations loose if they know people they respect not only approve, but plan on joining in. Request that your leader/champion draft an official letter of invitation that entreats people to get involved and to let their creative spirit run riot.

Participation
Enlisting everyone's participation is critical, but generally not feasible in one workshop due to time, space, staff, and funding limitations. Remember that futures fluency is a continual process; define the participant list for this first workshop first in terms of who would most enthusiastically help disseminate that process to a wider circle of people. But do choose participants to maximize representation of different perspectives, different clientele and interest groups, and different levels of involvement in your community or organization. Cast your net wide in terms of staff, stakeholders, and the community at large. Later on you can always narrow your focus with small task forces or working groups.

Resources
A futures workshop does not have to eat up resources; the time and money necessary will depend upon the goals for the given workshop. A futures discussion group can assemble every day at lunch for a week, rotate the responsibility to facilitate and record, and work through one exercise per day. That would cost an organization or community very little beyond ongoing commitment.

On the other hand, assembling a large group of people from all over the state, or all over the country, and with the aid of professional facilitation thoroughly discussing current crises, critical emerging issues, possible alternative futures, people's visions for positive change, goals, allies, resources and strategies to achieve those goals, could easily cost hundreds of thousands of dollars.

Achieving futures fluency requires primarily a daily commitment to spend some time thinking about the future. Formal exercises in imaging alternative futures, participatory visioning, and planning achievement are time intensive. Ideally, "what if?" and "what would this look like if it were the best it could be?" should be questions that staff members ask themselves throughout each day. Futures thinking should be a way of doing work, an operating perspective, not an extraordinary process for special events. In order to get staff to that point, a
round of futures activities, such as workshops, exercises, interactive processes, and training opportunities, is required. But any group can start modestly; some means to do that follow, in the sections on workshop design, agendas and exercises.

**Logistics**

The workshop itself requires at least one large room in which the group as a whole can meet. If the room is sufficiently large, working groups may stake claims to the four corners of the room; if a ballroom or auditorium is not available, then four smaller rooms in which working groups may meet will also be necessary. The advantage to the larger room is the sense of friendly competition the neighboring bustle of discussion engenders. The advantage to several small meeting rooms is the privacy and insulation from distraction.

In terms of supplies, each participant will need paper and pens to jot down ideas. Each working group will need one or two pads of newsprint and one or two rainbow sets of water-color magic markers, as well as a roll of masking tape. In addition, each working group will also use one four foot by six foot sheet of butcher paper, to consolidate individual vision statements into a small group vision statement.

To ensure that discussions are as productive as possible, the group as a whole should be led by a facilitator and recorder outside the process: if possible, use of a trained facilitation/recording team is recommended. Large group discussions will require at least four pads of newsprint, two rainbow sets of water-color magic markers, and several four by ten or six by twelve foot sheets of butcher paper. The latter will serve as the canvas for the synthesis vision statement from the group as a whole.

If possible, coffee, tea, fruit juices, and soda should be supplied throughout the day (this is thirsty work), and lunch for the group as a whole. Providing lunch cuts down on the time required for lunch break -- as no-one needs to leave the premises -- and also allows a chance for participants to discuss the proceedings in an informal way: some of the best ideas emerge from coffee breaks and lunch breaks.

Depending on how far-flung staff members are, hotel reservations and air tickets may also be required. In that case, arranging for meeting rooms in the hotel where most people will stay cuts down on wasted time. Furthermore, it increases the intensity of the experience by immersing participants in the process.
Designing Agendas

Like amoebas, futures workshops may take many shapes (and change shape as they progress). As mentioned previously, people may get together on an informal basis to work through various futures exercises, in which case the "agenda" would fragment and spread out over weeks. Modest, in-house efforts can be scheduled for half a day a week over four weeks. More formal workshops can be arranged for a full working day, or over a weekend as a retreat.

The sample agendas which follow illustrate how to combine these exercises to fit different schedules. They also may be useful singly in planning and problem-solving. The possibilities will vary depending upon planning deadlines, goals, and participant needs and constraints. Three sample agendas are offered as illustrations: 1) for six hour-and-a-half sessions over six weeks; 2) for one day; and 3) for two days.

Agendas do have certain constants. Breaks and lunches are important. Schedule a fifteen minute breather every two hours, and try to keep everyone together for lunch. People need time to chat, debrief over what they have just done, and recharge. If you are beginning early in the morning, allow at least a half hour morning coffee/get acquainted margin at the beginning of your schedule. This allows stragglers to blend in gracefully with early birds, and gives everyone a chance to wake up completely.

Whether the workshop spreads over several days, takes only an afternoon, or expands in the luxury of a full weekend, at least one hour in the beginning of the process must be devoted to general orientation, introductions, and expectations. This includes introducing the organizers, sponsors (if any), the facilitators and recorders, and reviewing the agenda. Next, the participants introduce themselves. During this time the facilitators can elicit participants' expectations concerning the activities and outcomes of the workshop. Record their expectations on newsprint and post them on the wall for the duration of the workshop. After reviewing people's expectations, but before introducing the chosen exercises, the organizers and facilitators need time to answer last-minute questions and address lingering confusion.

A NOTE ABOUT INSTRUCTIONS AND MATERIALS

General Instructions/Materials

It is critical for workshop success that people feel relaxed, comfortable, and unfettered. Make sure that invitations stress casual clothes. Arrange your room, or rooms, so that people can move chairs and tables around if they feel like it. Whenever possible, encourage people to sit on the floors: encourage people to break out of the constraints of everyday perceptions and conventions.
The facilitators should have at least two easels with newsprint pads on each, two rolls of masking tape, a roll of butcher paper, and two complete, full-spectrum sets of water color magic markers: Mr. Sketch markers are just fine, although premiere recorders and facilitators use the next-to-impossible-to-obtain El Marko's. Whatever the brand, use of water color markers is critical, as they do not dry out as quickly as the more volatile permanent markers, and with water color markers you run less of a risk of permanently inscribing your work on the walls. The roll of butcher paper provides three-foot wide canvasses of various length: for mapping out the agenda; for distributing to the small groups for their initial composite vision; for synthesizing group and individual visions into the overall vision. The facilitators may also want to bring a pleasant-sounding chime or bell with which to signal the end of activities.

Each small working group should have its own easel, roll of masking tape, and at least one full-spectrum set of water color magic markers (two would be nicer). In addition, each small group will need at least one three foot by five foot sheet of butcher paper, in order to sketch out the small group vision. Participants should also have pads of paper, pencils, and name cards or name tags which prominently display their first names only -- to lessen the "hill of influence" from the beginning.

Exercise Instructions/Materials
The exercise worksheets in this appendix each contain specific instructions for initiating and completing the exercise, the approximate number of people it requires (partners, small group, workshop as a whole), and the approximate amount of time required to complete it. For the convenience of workshop designers and facilitators, each exercise worksheet is followed by a resource sheet which summarizes the exercise's objective, time requirements, number of people, material requirements, set up, and potential problems.
SAMPLE AGENDA ONE

Incasting

Day One/Week One

1) INTRODUCTIONS, EXPECTATIONS  
2) AGENDA, GOALS, GROUNDRULES  
3) Warm-up: Random Futures  
4) Brainstorm: issues critical to organization  
5) Hand-out FIRST scenario and incasting instructions for next meeting, review briefly

Day Two/Week Two

6) REFLECTIONS on previous meeting; AGENDA  
7) Questions and answers re: scenario one  
8) Incasting, scenario one  
9) What are the advantages? disadvantages? how did the critical issues fare in this scenario?

Day Three/Week Three

10) REFLECTIONS on previous meeting; AGENDA  
11) Questions and answers re: scenario two  
12) Incasting, scenario two  
13) What are the advantages? disadvantages? how did the critical issues fare in this scenario?

Day Four/Week Four

14) REFLECTIONS on previous meeting; AGENDA  
15) Questions and answers re: scenario three  
16) Incasting, scenario three  
17) What are the advantages? disadvantages? how did the critical issues fare in this scenario?

Day Five/Week Five

18) REFLECTIONS on previous meeting; AGENDA  
19) Questions and answers re: scenario four  
20) Incasting, scenario four  
21) What are the advantages? disadvantages? how did the critical issues fare in this scenario?
Day Six/Week Six

22) REFLECTIONS on previous meeting; AGENDA 15
23) Compare advantages, disadvantages, critical issues across four scenarios 30
24) What strategies/policies, if any, would work well in all four scenarios? 30
25) How can the trends contributing to each scenario be monitored by the organization? 15
SAMPLE AGENDA TWO
Scenario Building

TIME ACTIVITY
8:30 Introductions & Expectations
8:45 Agenda, Goals, Groundrules
9:00 Warm-up: LISTENING FOR DETAIL
9:45 Warm-up: PROVOKING ALTERNATIVE FUTURES
10:30 BREAK
10:45 Emerging Issues/Trends: Presentation & Discussion
   Participants ID "future certainties," if any, and strategic concerns
12:00 LUNCH
1:00 Participants separate into working groups of 5-10 each; each group is
   given three trends, and brainstorms trend impacts via a FUTURES
   WHEEL
1:45 Using a CROSS-IMPACT MATRIX, each group brainstorms possible
   combined impacts of their three trends
2:15 Facilitator takes fifteen minutes for questions, clarifications, and
   appreciation of emerging scenario gestalt in each working group
2:30 BREAK
2:45 Each working group elaborates scenario by INCASTING missing details
3:15 Each working group nominates a writer, or writing team, and spends 30
   minutes discussing the scenario's ambience, or engaging in
   ALTERNATIVE FUTURES II
3:45 Working groups report back
4:15 Debriefing; +/delta evaluation; next steps
4:30 GOOD-BYE
## SAMPLE AGENDA THREE

**Visioning**

### DAY ONE

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45</td>
<td>Warm-up: NET-WEAVING &amp; Introductions (participants introduce themselves as they catch the yarnball)</td>
</tr>
<tr>
<td>9:00</td>
<td>Expectations: participants offer their goals for the meeting; facilitator records on list</td>
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<tr>
<td>9:30</td>
<td>AGENDA; questions and answers</td>
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<tr>
<td>10:00</td>
<td>BREAK</td>
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<tr>
<td>10:15</td>
<td>Emerging Issues/Trends of Change: presentation followed by questions and answers</td>
</tr>
<tr>
<td>11:30</td>
<td>COMMUNITY CHANGES, PAST AND FUTURE</td>
</tr>
<tr>
<td>12:00</td>
<td>LUNCH</td>
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<tr>
<td>1:15</td>
<td>WHAT COULD NEVER HAPPEN</td>
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<tr>
<td>1:30</td>
<td>Fears/Worries Brainstorming (catharsis)</td>
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<tr>
<td>2:00</td>
<td>REVERSE THE NEGATIVE</td>
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<tr>
<td>2:30</td>
<td>BREAK</td>
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<tr>
<td>2:45</td>
<td>PERSONAL VISION WORKSHEETS (individual work)</td>
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<tr>
<td>3:45</td>
<td>Sharing Personal Visions</td>
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<tr>
<td>4:30</td>
<td>Review tomorrow’s agenda</td>
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<td>4:45</td>
<td>End for the Day</td>
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DAY TWO

**Time**    **Activity**

8:30 Reflections on Yesterday; Agenda Review

9:00 Participants self-select working groups based on common elements of interest in their personal vision statements (no group should be larger than 10; split any larger groups into two)

9:30 GROUP VISION DEVELOPMENT (only one hour)

10:30 BREAK

10:45 Working groups present joint visions; group as a whole looks for common themes, popular details, to build an overall vision statement

11:15 Common themes & favored details summarized, elaborated on large butcher paper

12:00 LUNCH

1:15 Mediating disagreements: everyone review summary vision, post notes where details are unclear/disagreements arise; discussion

2:00 Clarify, change, agree to disagree, & embellish vision of the workshop as a whole

2:30 BREAK

2:45 WHERE WE CAN START (people suggest resources, allies, and actions to create specific aspects of the vision)

3:30 Report back on next steps

4:00 De-briefing: how many of the expectations we listed did we meet? Comments, reflections on the process; +/-delta evaluation

4:30 Thank you and good-bye.
NET WEAVING

Participants (in groups of at least six and no more than twenty-five) should get up from their chairs and find an open space large enough to accommodate everyone standing in a loose circle. The facilitator, who joins the circle, hands a ball of string to one of the participants, asking that person to hold onto the free end of the string, and toss the ball to another participant. The next person to catch the ball takes hold of the string, anchoring it, and tosses the ball on to someone else. This continues until everyone is providing an anchor point for the string, and everyone has caught the ball and passed it at least once.

The end result -- unless everyone has passed the ball of string to the person standing next to them, rather than tossing it across the circle -- should be a loose net of string, suspended from the hands of the people making up the circle.

Probes
We are about to start a workshop where we hope to work together as a team and create new ideas and new images of ourselves and our organizations. What does this net suggest to us with regard to teamwork?

How many nodes are created by the intersections of the string? How anchor nodes are there?

What would we have created if we had tossed the ball of string to the person next to us, rather than across from us? What does this suggest about opposing viewpoints and differences in perspective?

What happens if one-fifth (or one-third, depending on total group size) of us let go of our anchor points?

TAKE FIFTEEN MINUTES
RESOURCE SHEET: NET WEAVING

OBJECTIVE: To get people to talk about teamwork and group process, what contributes to constructive group process, and how it can enhance idea generation and capture. The exercise provides positive metaphors for group process: the net of string parallels the net of communication you are trying to build, a web to capture and support ideas; the intersections of the strings form more nodes than there are participants (together we can generate more ideas than we can as individuals); the most supportive net is made of lines connecting opposite points, rather than points in proximity; and the loss of even one participant weakens the integrity of the net -- weakens our capacity to generate and consider new ideas.

TIME REQUIREMENTS: 15 minutes.

NUMBER OF PEOPLE: No fewer than six and no more than about twenty-five; break a large workshop up into smaller groups.

MATERIAL REQUIREMENTS: Enough space to form standing circle(s) of all your participants; one large ball of twine per circle.

SET UP: Get everyone out of their chairs and into some open space; if necessary, divide large groups up until no group is larger than twenty-five or smaller than six. Give each group a ball of twine, explaining that everyone should take a firm grip on the twine and then toss the ball, letting the twine reel out from the anchor point they are holding in one hand. Keep tossing the ball to other people until everyone has caught the twine and tossed the ball at least once. Then, as people are standing holding the net, ask the Probe questions to prompt discussion.

POTENTIAL PROBLEMS: This should move very quickly; it is a simple illustration of the points it reinforces, and if it takes too long will make people feel they are wasting time. Use it only at the beginning of workshops: after reviewing the agenda and people's expectations, you could, for example, call on people randomly to stand up, introduce themselves, and remain standing - - once everyone is on their feet, move them quickly into position for this exercise. Some very serious professional personalities may think this is silly; coax them with the thought that it is quick.
WRAPPING IT UP

For this exercise, we need to work in teams of five; please count off (or the facilitator may split people into working groups). Each team should go stand by a table. On the table you will find a delightful objet d'art, some tissue paper, a box, wrapping paper, a few pieces of tape, and a ribbon. Your team's job is to wrap the object in tissue paper, put it in the box, close the box, wrap it, and tie the ribbon around it. However, EACH PERSON may only use ONE FINGER to help the team accomplish this goal: this makes the group as a whole one hand. After everyone gets sorted out at their tables, your team has twenty minutes to wrap it up.

Probes
(for discussion after groups display their wrapped objet d'art)
What did you do first?

How did you coordinate your actions?

Did you have any small failures or crises at first? Did they give you any insights into improving the process?

What worked best to coordinate your actions?

What does this suggest about coordinating complex group activities?

THIRTY MINUTES TOTAL
RESOURCE SHEET: WRAPPING IT UP

OBJECTIVE: Illustrating that complex group activities require people to make their assumptions and expectations explicit, to communicate their intentions clearly before acting, and to give feedback to team members constantly. In addition, plans should get the buy-in of all group members before activities commence, in order that all available human resources are used to capacity to implement the vision (in this case, a wrapped gift).

TIME REQUIREMENTS: About five minutes to assign people to teams and get them to their tables; only twenty minutes for the teams to wrap the gift; five minutes or so to debrief. If the discussion after the exercise is lively, you may want to let it run fifteen minutes, but no longer.

NUMBER OF PEOPLE: Ideally, each team should have five members; four or six are possible (alien hands).

MATERIAL REQUIREMENTS: As many tables as there are teams; per team table: 1) a suitable objet d'art, 2) two leaves of tissue paper; 3) a box into which the objet will fit; 4) a sheet of wrapping paper large enough to wrap the box; 5) four pieces of cellophane tape; and 6) a ribbon large enough to wrap around the box and tie.

SET UP: Choose some means to divide participants into groups of five, and move them as quickly as possible to their tables. This would create the greatest amount of energy if it could occur in one large room; the hubbub of the various groups working tends to spur on each individual group. It also cuts down on travel time to and from tables at the beginning and end, and makes presentation of the finished "gift" to the group as a whole easier.

POTENTIAL PROBLEMS: Obviously, the exercise generates a fair amount of slapstick comedy. Although this raises energy levels, it also lengthens the process. Move from group to group encouraging their efforts, and reminding them of the time limitations.
LISTENING FOR DETAIL

INSTRUCTIONS: Introduce yourself to someone you have not yet talked to at length; that person will be your partner. Your task for this exercise is to express as clearly and vividly as possible a very positive, very happy memory: try to give your partner a "holographic snapshot" of the moment. Try to include details involving all the senses. Each of you should spend at least 5 minutes actively listening to the other express this memory; you have 15 minutes total.

ACTIVE LISTENING MEANS:

Listen as an ALLY: listening to UNDERSTAND, not to evaluate listening positively, not as an adversary.

RESPOND to your partner: nod; when you agree with something, say so; verbally let your partner know that you're still following the verbal track.

TAKE NOTES: it legitimates what the speaker is saying, it helps you remember, it allows you to highlight or question for clarification quickly.

Ask QUESTIONS: don't be afraid to ask "dumb" questions -- you may get unexpected answers; give your partner every opportunity to explain in detail, BUT...

Ask OPEN-ENDED questions: could you elaborate on that last part?

REPEAT the message occasionally: Okay, what I think I hear you saying is..., is that right?

Be POSITIVE; ENCOURAGE the speaker: that's an interesting point; please explain further...

Use BODY LANGUAGE: relax, sit back, keep your arms and hands open, SMILE

If you've listened actively -- and been actively listened to -- you should be able to relay clearly and in vivid detail a happy memory of your own, and YOUR PARTNER'S HAPPY MEMORY.

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: LISTENING FOR DETAIL

OBJECTIVE: To help each participant practice vivid expression of images, and learn to listen actively and neutrally.

TIME REQUIREMENTS: 15 minutes.

NUMBER OF PEOPLE: Two; participants work in pairs during this exercise.

MATERIAL REQUIREMENTS: Each participant should have a pad of paper and a pencil or pen.

SET UP: Split the participants up into pairs; ask them to rearrange their seats, if possible, so they can focus on what their partner is saying. Encourage them to take notes while listening to their partner, and remind them that "notes" can be either words or pictures: evocative doodles, cartoons, and sketches can help the other person enrich how vividly she or he visualizes and expresses images.

POTENTIAL PROBLEMS: People may get carried away talking -- and listening. This exercise runs the risk of running over time. Ask each person to self-police when it is their turn to talk, and ask their partner for time checks. This is not meant to rush people, merely to indicate a nice consideration for sharing time equally.
Everyone has been paired off with someone whose views on a controversial issue diametrically oppose their own. Your task is to elucidate your partner’s views fully, and record their views accurately -- in their judgment. Each of you should spend at least 5 minutes actively listening to the other express their views on the issue, and recording those views as accurately as possible; you have 15 minutes total.

ACTIVE LISTENING MEANS:

Listen as an ALLY: listening to UNDERSTAND, not to evaluate listening positively, not as an adversary.

RESPOND to your partner: nod; when you agree with something, say so; verbally let your partner know that you’re still following the verbal track.

TAKE NOTES: it legitimates what the speaker is saying, it helps you remember, it allows you to highlight or question for clarification quickly.

Ask QUESTIONS: don’t be afraid to ask "dumb" questions -- you may get unexpected answers; give your partner every opportunity to explain in detail, BUT...

Ask OPEN-ENDED questions: could you elaborate on that last part?

REPEAT the message occasionally: Okay, what I think I hear you saying is...., is that right?

Be POSITIVE; ENCOURAGE the speaker: that’s an interesting point; please explain further...

Use BODY LANGUAGE: relax, sit back, keep your arms and hands open, SMILE

If you’ve listened accurately, and recorded neutrally, you should be able to express clearly your partner’s views in her own words to her satisfaction.

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: RECORDING CONTROVERSY

OBJECTIVE: To learn to listen without judgment, purely for the sake of accurately recording and relaying another person's opinion, ideas, and collection of facts about an issue. This exercise encourages the restraint required to assure fair play and an equal hearing to all in group process, as well as the suspension of judgment and disbelief necessary in brainstorming and various futures exercises.

TIME REQUIREMENTS: Obviously, some investment of time is required upfront: people must take about five minutes to complete the brief survey of controversial issues. It may be sent to them in advance of the workshop, or given to them when they arrive, for completion and return immediately, in order that the facilitator might construct the opposed pairs. The exercise itself should take no longer than fifteen minutes, however, make sure you allot time for discussion afterwards in your agenda and schedule, as people will want to debrief and depressurize after practicing such restraint.

NUMBER OF PEOPLE: Two; all participants will work with a partner.

MATERIAL REQUIREMENTS: Each participant should have a pad of paper and a pencil or pen.

SET UP: Construct a short (six to eight item) survey that simply asks participants to state their position, pro or con, on half a dozen or so controversial issues: gun control, abortion, Rush Limbaugh, etc. In a community group, you could choose community-specific controversies. Create pairs of participants diametrically opposed in views on one of the controversies listed. Introduce participants to their assigned partner; ask them to rearrange their seats, if possible, so they can focus on what their partner is saying. Encourage them to jot down their partner's phrases and capture their ideas as specifically as possible, with the goal of accurately relaying ideas and opinions no matter what the content and participants' own views about that content.

POTENTIAL PROBLEMS: This exercise has its dangers; obviously, very strong feelings may be provoked, and the facilitator needs to keep a close weather eye on the progress of each opposed pair. When body language, expostulation, or raised voices indicate people are losing restraint, the facilitator must immediately intervene to cool off the situation, perhaps break off the exercise for that pair, and debrief. In most cases, however, simply reviewing the goals and groundrules for the pair in trouble should restore the situation long enough for the two to complete the exercise.
PROVOKING ALTERNATIVE FUTURES

This exercise derives from research on creativity ("lateral thinking") by Edward De Bono. We want to brainstorm ideas about the future by thinking the unthinkable, as it were, in response to a deliberately provocative statement. De Bono has suggested using the word *po* to signify, "whatever follows is meant to provoke." Listen carefully to the provocation, and then imagine conditions or characteristics the future would have to have to make that provocation true and to explain how it works. We want to spend about fifteen minutes brainstorming a list of supporting conditions for the provocation.

It is thirty years from now:

*PO* money no longer exists.

**Probes**
What are all the possible reasons we can think of for this to be a true statement?

What else might have to be true for this to be true?

How would these suggestions work?

What impacts might they have on daily life, on governance, on the economy, on the environment or on art?

**TAKE FIFTEEN MINUTES**
RESOURCE SHEET: PROVOKING ALTERNATIVE FUTURES

OBJECTIVE: To help people learn to surprise themselves; to offer practice in lateral thinking, in learning to imagine difference; to offer practice in suspending judgement and generating ideas as a group.

TIME REQUIREMENTS: Take only fifteen minutes -- this is just a warm-up, don't let it drag.

NUMBER OF PEOPLE: This works fairly well in a range of group sizes, from team of three or four to workshops of thirty or forty -- over forty you have the problem of people making themselves noticed and heard when they want to add an item to the list.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: Facilitators and workshop organizers should devise a po appropriate to the group's focus, concerns, and goals, something that is linked to the overall theme of the workshop. If the group is larger than forty assign participants to smaller working groups. This serves as a good warm-up to work within small groups that may already have been assigned.

POTENTIAL PROBLEMS: Some participants will resist this, e.g., "But that's a ridiculous thing to say! It isn't possible!" or "That could NEVER happen!" It is best to offer an example complete with proposed reasons for the truth of the statement, e.g., "Po by 2020, nobody shaves," reasons: biodegradable depilatories perfected, used by both men and women; values respecting natural environment and the natural human body reverse social disdain for human hairiness; genetic engineering offers the "stop-hair" cosmetic option, etc. Offering examples models the behavior and the perspectives and modes of thinking which lead to responses for the po offered.
THE PERSISTENT CHILD
AN ASSUMPTION CHALLENGE EXERCISE

This exercise, also derived from de Bono's creativity research, asks us to look at how we work and identify what we take for granted, what our accepted assumptions are about the environment in which we plan, act, produce, or administer. We want to identify those long-standing assumptions, modes of thinking, or patterns of behavior, and challenge them. By asking, "why do we do this this way?" we can free ourselves to ask, "couldn't we do it another way instead?"

First, identify a target for the challenge, some characteristic of your current environment that seems a focus for difficulties. For example, depending on your organization's focus, you might identify permitting processes; a struggling product's usual market; educating people to recycle. Make sure to specify clearly how the process in question works, or where it happens, as appropriate. The facilitator write the target at the top of the newsprint on the recorder's easel.

Next, spend five minutes brainstorming answers to the question, "WHY?" Why is this done this way, in this place, by these people? Where did we acquire these habits and assumptions?

Finally, spend the remaining time brainstorming answers to the question, "WHY NOT .......?" That is, specifically work to think of processes, locales, designs, messages, etc. as different as possible from the current operating assumptions. DO NOT evaluate their workability at this point: engage in pure brainstorming of the widest variety of options.

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: THE PERSISTENT CHILD

OBJECTIVE: To challenge traditional approaches, modes of thinking, ways of doing things by revealing them where they may be taken for granted, and asking what their origins were. By challenging an environment's "givens," people open their thinking to wider possibilities.

TIME REQUIREMENTS: This is a warm-up, and should move briskly for fifteen minutes.

NUMBER OF PEOPLE: As this tends to generate discussion, or at least requests for clarification, it is easier to keep it moving in smaller groups, say about twelve to fifteen people, or less.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: Facilitators might want to work with workshop organizers to choose a target prior to this exercise of particular concern to the group or the overall focus of the workshop; this saves time for the actual brainstorming. If the group is larger than twelve to fifteen, split participants into smaller focus groups.

POTENTIAL PROBLEMS: History and tradition are an important part of organizational and community culture; some people might balk at this challenge. Emphasize that it is first and foremost an exercise in creativity; that any options generated by the "WHY NOT .......?" would certainly be evaluated and prioritized before acceptance; and finally, that enthusiastic participation does not imply advocacy of immediate revolution [although that might be a good and necessary thing, depending upon how moribund the group's processes of thinking and doing are].
RANDOM FUTURES

This lateral thinking exercise represents brainstorming in almost its purest form. It emerges from the idea that combining or overlaying two disparate concepts generates new ideas from the contrasts, dissonances, and interference patterns that emerge as the two concepts resonate in our minds. That is, if you take two items that are wildly different and force them together, you will look at both of them in new ways, and find or create new situations in which they co-exist.

To generate random futures, then, we will once again use a po, only this time the po will consist of a word, preferably a noun, describing something in the present critical to our interests, contrasted with a randomly chosen noun.

For example, say we are the local municipal transportation authority:

transit po seed

What ideas does this conjunction conjure up?
-- seeds, seedpods: mass transit made of small, individualized units;
-- plants scatter seeds from a central source radially outward
-- some plants use "helper" animals to scatter seeds: what "helper"
    organizations or businesses could expand reach of city transit?
-- etc.

Your facilitator will suggest a po; spend ten minutes brainstorming new ideas and approaches that the po suggests, and then pick three that seem most evocative of a very different future for your community or organization.

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: RANDOM FUTURES

OBJECTIVE: To generate wild variations on current reality by forcing associations between two objects or ideas that are not normally associated in the present, thus creating an array of surprises possible in some future reality.

TIME REQUIREMENTS: As this is a warm-up, stay within fifteen minutes and encourage the group to generate ideas rapidly [stated in short phrases].

NUMBER OF PEOPLE: Because people find this exercise unusual, it is better to limit the number of people for whom any one facilitator is responsible, so that queries can be quickly clarified: limit the group to twelve or less.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: Facilitators might want to work with workshop organizers to choose the po prior to this exercise, with a focus noun of particular concern to the group or the overall focus of the workshop, and a provocateur noun drawn at random from a dictionary; this saves time for the actual brainstorming. If the group is larger than fifteen, split into working groups.

POTENTIAL PROBLEMS: This exercise is conceptually a little difficult for people who have never tried it before; make sure you offer a very clear example. As the ideas that pop into people's minds will often seem very wild, they will need encouragement to express them: make the environment as safe as possible, and be prepared to coax people. Remind everyone that a suggestion that makes everyone smile or laugh is the best kind.
EMERGING TRENDS

On the following pages are lists of trends likely to affect local communities. They were suggested by futures researchers over the course of various research projects and conferences during the past four years. It is important for you to clarify your own answers to these questions: communities are often unprepared when the future arrives because they have not asked these questions. What trends do you think will be important over the long term in shaping your community? Try to identify trends that are just emerging, that have not yet become widespread social issues, but that you think might have wide social impacts over the next decade.

On a piece of paper jot down what you think will be the three most important forces (trends, issues, or events) that will shape your community over the next 20 years. Write this legibly enough so others can read it. Pass this paper to the person to your right. Share the papers so each person has one.

On the new list in front of you, written by someone else, cross off the least important of the three items. Pass this to the person on your right also.

On this list, of the two remaining items, cross off the least important. Pass the paper back to the author.

Look at your list. What do you think is the most important? Is it the one which remains, not crossed off?

The facilitator will quickly list the items that remain on the flip chart. This provides an initial listing of what the group thinks is most important. (Depending on the time available the lists can be collected and more systematically compared.)

What does this exercise tell us?

1. We are all futurists. We carry models of change in our heads. We can put them on paper and we can evaluate and compare them.

2. Given more input, each of us might revise our list of key forces. Futures thinking should make us more flexible.

TAKE FIFTEEN MINUTES
RESOURCE SHEET: EMERGING TRENDS

OBJECTIVE: To help participants appreciate external forces affecting their community, and emerging trends of change.

TIME REQUIREMENTS: 15

NUMBER OF PEOPLE: The workshop as a whole.

MATERIAL REQUIREMENTS: Each person should have a pad of paper and a pencil or pen.

SET UP: This exercise works best if an introductory speaker has already presented some trends of change facing society in general and their community in particular. This does not require re-arranging participants' seating, but people must have pieces of paper and writing implements immediately to hand in order to avoid hunt-and-search delays. Also, remember that people on the ends of rows will have to pass their list up a row, or around to the other end of the row: use the other workshop staff as list runners.

POTENTIAL PROBLEMS: Make sure that you focus on trends of change, rather than current worries or fears expressed as problems that will affect the courts progress into the future -- i.e., funding.
LIST OF EMERGING TRENDS
[last updated January 1995]

Society
* populations in developed countries growing older BUT VIGOROUSLY; heightened understanding of aging process creates "active seniors;"
* bronzing of population: percentage of "Eurodescended" population declining globally, while percentage of Asian, Pacific, Latin American, African increasing;
* increased cultural diversity everywhere: more culture’s voices heard, more immigrants and their descendants retrieving and celebrating their origins.

Technology/Science
* communications technologies increasingly international, mobile, interlinked, expert-system-based, personalized, and miniaturized;
* expanding concept of property rights, to "ownership" of one’s genetic resources;
* better understanding of biochemical processes of brain and of mind-body interactions;
* increased understanding in developmental biology of mechanisms of growth (including organ/skeleton repair/regeneration) and aging.

Economics/Business
* electronic purses organizing your financial and other records and your ready cash on one plastic card with a smart chip;
* growing job insecurity: downsizing and outsourcing in business continue;
* growth of information and creation economy: data production and idea generation worth more than industrial production.

Environment
* end of the "natural:" humans have left nothing on the planet untouched;
* erosion of the "historical:" cultural treasures of humanity increasingly overvisited, damaged by too much human appreciation -- increasing with growth of destination and theme tourism;
* emergence of major global climate change impacts (despite doubters);
* "micro-predators:" mutating viruses and bacteria immune to antibiotics.

Politics
* increasing demand for representation/sovereignty by subcultures within nations;
* increased political use of Internet and related telecoms/computer networks: pay taxes via Internet, send letters to Congressmen via Internet, VOTE via Internet?
* increased visibility of paramilitary organizations as white, Eurodescended males attempt to maintain perceived roles as top dogs;
* globally, community rights increasingly stressed over individual rights.
KEY FORCES CHANGING THE COMMUNITY/WORLD

This is a very simple brainstorming exercise: we are all going to practice being futures researchers by identifying long-term trends of change we see around us in our community, as well as trends we think are changing the world as a whole.

First, spend ten minutes or so brainstorming a list of the most dramatic forces of change affecting the future of the world.

Probes
What's happening to population? health? the environment? business? communications or transportation? Are any of those changes creating any other new forces of change?

Second, spend ten minutes or so brainstorming a list of the most dramatic forces of change you see affecting the future of your community.

Probes
Who's moving in? moving out? Any traditional activities/businesses changing or disappearing? What changes are occurring among young people? elders? families? What changes is the environment undergoing, and what's causing them?

Finally, spend five or ten minutes discussing the connections between the forces acting globally and those you see locally; what are the differences?

TAKE THIRTY MINUTES.
RESOURCE SHEET: KEY FORCES CHANGING THE COMMUNITY/WORLD

OBJECTIVE: This exercise helps people focus on trends of change around them which they may have already unconsciously recognized, proving that anyone can be a futurist. In asking people to think about change within their community as well as the world as a whole, the exercise both links their daily lives with the larger sweep of change, and also highlights the differences between change at the global scale and change locally.

TIME REQUIREMENTS: Approximately thirty minutes, with about ten to fifteen minutes each for suggesting forces working globally, and those working locally.

NUMBER OF PEOPLE: This exercise can actually be accomplished with one facilitator working with a fairly large group, as many as thirty. However, if the group gets on a roll brainstorming, it can become very difficult for the recorder, so the facilitator must be able to pace the group for the sake of getting all suggestions written down, without losing momentum.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: This requires no particular set-up aside from the introduction and instructions from the facilitator. It may be used as the first exercise for small working groups, as a warm-up, in which case participants will need to rearrange their chairs in areas assigned to each working group, and the material requirements will be multiplied by the number of working groups involved.

POTENTIAL PROBLEMS: It is very easy for people to focus on present problems, rather than true emerging issues or trends of long-range change. This works best if the group has already been introduced to some trends of change, either in background reading material, or in a speaker’s presentation. However, if neither is available, the facilitator can use the probes and examples to push people into thinking about longer-term and more sweeping changes.

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COMMUNITY CHANGES, PAST AND FUTURE
SMALL GROUP EXERCISE

You should introduce yourself to the four to six people in your small group. In this exercise, you are going to consider changes you have seen occurring around you. This exercise follows the basic rules of brainstorming: reserve judgment; every suggestion or idea is a good one; try to generate as long a list as you can. Everyone take 5 minutes to jot down a brief list of responses to the following two questions:

1. What changes have you seen in your community over the last fifteen years?
2. What changes have you seen [on Maui, in the State] as a whole over the last fifteen years?

Choose a group recorder, and take 10 minutes to consolidate your lists into a group list. * three items that you think were the most significant in the last fifteen years.

NEXT, think about the changes you are witnessing around you today, and the rumors of change on the wind for tomorrow. Everyone take 5 minutes to note brief responses to the following questions:

1. What changes do you think will most affect your community in the NEXT fifteen years?
2. What changes do you think will most affect [Maui, the State] as a whole in the NEXT fifteen years?

Take 10 minutes to consolidate your lists into a group list. * three items that you think will have the most impact in the next fifteen years.

You now have two lists, past and future, which have three critical changes each. Draw a timeline with one endpoint fifteen years ago, and the other fifteen years from now. How would you arrange your six critical items along this span of time?

Report back to the whole group; the facilitator will draw a summary timeline, adding in each small group’s critical changes where specified.

TAKE FORTY-FIVE MINUTES.
RESOURCE SHEET: COMMUNITY CHANGES, PAST AND FUTURE

OBJECTIVE: To help participants appreciate the extent and speed of change, and begin to build a mental timeline that stretches from the past through the present forward into the future. This exercise also develops basic brainstorming skills.

TIME REQUIREMENTS: 45 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small discussion groups for this exercise.

MATERIAL REQUIREMENTS: At least one easel, newsprint pad, and three or four different colored magic markers per small group; masking tape; one sheet of three foot by five foot paper for the timeline for each group, and one sheet of three foot by five foot paper to consolidate all the small group timelines for the workshop as a whole.

SET UP: Split the workshop up into small working groups; have people rearrange their chairs into circles, or sit around tables if available. Ask the group to choose a group recorder to jot down ideas as people brainstorm. Remind people that the goal is generating a long list of changes first, without judgement, evaluation, examples, or discussion, and prioritizing second.

POTENTIAL PROBLEMS: Generally, people find identifying changes they have seen in the past easier than projecting change into the future. To jog their prospective thinking, you may ask them to spend a minute or two verbally reminding themselves of innovations and inventions recently in the news.
IDENTIFYING POTENTIAL SIDE EFFECTS

Given a design that fits with a vision, it is relevant to explore the unintended consequences, the side effects of the various actions that would make up the design.

There are several options for accomplishing this task. One is presented in the exercise which follows, "Futures Wheels." Another is to simply develop a mental image of how the design would be put into place. Ask yourself who would benefit or be harmed by it. Some of this benefit or harm might be appropriate or acceptable, but for that which is undesirable, consider what actions might be taken to mitigate the negative consequences.

Beyond the persons who might be affected, what other side effects might accompany your design?

Brainstorm about this in the small group. If there is sharp disagreement on particular side effects or how to mitigate them, note that in your report.

TAKE THIRTY MINUTES.
RESOURCE SHEET: IDENTIFYING SIDE EFFECTS

OBJECTIVE: To identify possible side effects of potential external changes, and of designed changes; to identify the possible benefits and disadvantages of changes in the judicial system, and for whom; and to stimulate discussion and evaluation of vision details.

TIME REQUIREMENTS: 30 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small working groups.

MATERIAL REQUIREMENTS: An easel with newsprint and magic markers.

SET UP: Split people into working groups, if they are not already, and ask each group to choose a recorder. As the group brainstorms potential side effects of implementing the vision, the recorder lists them, leaving room next to each for a benefits/harms entry. Another group member can tape each sheet to the wall as it is generated. After the group has listed possible impacts, they review each impact to consider whom it benefits or harms. Focus the group discussion on trade-offs among the details that comprise the vision: which vision element does the most good for the most people? What are the potential side effects of the elements most critical to the vision, and whom do they affect most?

POTENTIAL PROBLEMS: This exercise helps explore the political aerodynamics of the changes the vision suggests. As such, it will elicit political agendas, philosophical differences, and long-buried disagreements. Remind people to value alternative perspectives and be considerate to different points of view: use this exercise to map out where all the possible political, economic, and philosophical pitfalls are for implementing the vision.
FUTURES WHEELS

Building a futures wheel is a two part exercise: it begins with a free-wheeling, wide-ranging brainstorming session, and then requires participants to categorize and order the ideas that emerge into a logical, albeit not linear, structure. This process may then be repeated to add a layer of secondary impacts, and again for tertiary impacts.

Step One: identify which possible court policy change or structural change you wish to consider. Participants should then take a few minutes to jot down their speculations about possible impacts of that change. As with any brainstorming session, these ideas should all be suggested to the group as a whole and recorded on wall notes.

Step Two: taking a fresh sheet of paper, the recorder writes the initial change action down in the center. Looking at the list of possible impacts, participants should decide which are immediate consequences of the suggested policy or structural change. The recorder arranges these immediate consequences around the original change action in a roughly circular pattern. Each first-order consequence, or primary impact, will give rise to consequences or impacts of its own. Some of these may already have been suggested by the group on the initial list; extend the wheel as far as possible, then brainstorm again to come up with more secondary impacts, and to begin thinking about tertiary impacts.

Arranging the possible impacts into quadrants according to issue helps participants work through not only how they might qualify the suggested change, but also what policies or actions they might suggest to mitigate negative impacts. TAKE FORTY-FIVE MINUTES.

Figure 1 EXAMPLE FUTURES WHEEL

Figure 2 EXAMPLE FUTURES WHEEL: IMPACTS CATEGORIZED BY QUADRANT
RESOURCE SHEET: FUTURES WHEELS

OBJECTIVE: To explore the primary, secondary, and tertiary side effects of a single design change within a community, and to enhance brainstorming skills.

TIME REQUIREMENTS: 45 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small working groups.

MATERIAL REQUIREMENTS: An easel with newsprint and magic markers.

SET UP: Split people into working groups, if they are not already, and ask each group to choose a recorder. As the group brainstorms potential side effects of implementing the vision, the recorder jots them down. Suggest that each first-order impact be given its own sheet of newsprint, and taped to the wall. As this exercise asks participants to consider multiple consequences of change, each group might want to limit itself to only three primary side effects. The group can then build a futures wheels for three primary side effects on three sheets of newsprint.

POTENTIAL PROBLEMS: This exercise is conceptually difficult for some. Have people review the sample futures wheels carefully, and be generous with time for questions. This exercise helps explore the outlying consequences of the design changes that the vision suggests for the community. Remind people that their lists of primary, secondary, and tertiary effects should contain both positives and negatives, as people tend to focus on one to the detriment of the other: both are important in long-range planning. This is not an appropriate exercise for generating logical extremes: it is a think piece to remind people that long-range plans need to monitor the impacts of change and include provisions for mitigation and adjustment.
CROSS-IMPACT MATRIX

Filling out a cross-impact matrix assumes first that you have identified an array of possible events or trends in social change. The goal is then to consider not just the primary, secondary, or even tertiary impacts of those events, but to explore cumulative impacts: how do two or more innovations, occurring simultaneously, reinforce or cancel each other?

Begin by choosing two or three change trends or events that you wish to consider in concert. Arrange these in a matrix, as below. Filling the diagonal cells with the most probable first-order impacts of each trend or event helps maintain focus while working on the rest of the cells.

Remember that the x-axis of the matrix represents the independent variable: the trend or event as change agent. As you work across, ask yourself how the event or trend in Row A will affect the trends or events in Columns B and C. TAKE SIXTY MINUTES.

<table>
<thead>
<tr>
<th>EXAMPLE CROSS-IMPACT MATRIX</th>
<th>TREES HAVE LEGAL STANDING</th>
<th>REMOTE SENSING FOR NATURAL RESOURCE POLICING</th>
<th>INDUSTRIAL CO2 EMISSIONS RISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TREES HAVE LEGAL STANDING</td>
<td>GREATER PRESERVATION OF FORESTS</td>
<td>MORE INVESTMENT IN FOREST MONITORING SYSTEMS</td>
<td>NET CO2 ADDITIONS TO ATMOSPHERE LOWERED</td>
</tr>
<tr>
<td>REMOTE SENSING FOR NATURAL RESOURCE POLICING</td>
<td>EASIER TO MONITOR FOREST RESERVES IN REMOTE AREAS</td>
<td>HEIGHTENED PROTECTION OF SCARCE RESOURCES, ENDANGERED SPECIES</td>
<td>INFRARED &amp; MASS SPECTROSCOPY MONITORING OF INDUSTRIAL EMISSIONS</td>
</tr>
<tr>
<td>INDUSTRIAL CO2 EMISSIONS RISE</td>
<td>TREES GROW LARGER, MORE PROLIFICALLY</td>
<td>POLITICAL CONCERN OVER ENVIRONMENTAL CHANGE FUNDS EXPANDED SPACE SENSING PROGRAM</td>
<td>GREENHOUSE EFFECT ENHANCED; CHANGED WEATHER PATTERNS; SEA LEVEL RISE</td>
</tr>
</tbody>
</table>

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RESOURCES SHEET: CROSS-IMPACT MATRIX

OBJECTIVE: To consider several components of change or actions simultaneously and identify their possible cumulative impacts; to stimulate discussion on the consequences of potential external change as well as designed change.

TIME REQUIREMENTS: 60 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small discussion groups.

MATERIAL REQUIREMENTS: An easel with newsprint; magic markers; masking tape; a large sheet of butcher paper; and "post-it" pads.

SET UP: Split people into working groups, if they are not already, and ask each group to choose a recorder. Encourage the group to quickly choose what they think are the most interesting changes implied by the vision -- the recorder will list the suggestions. Participants should pick three key changes, and construct a matrix like the example on the worksheet. Discussion should focus on generating the impacts that arise when two changes interact, as represented by the different boxes in the matrix.

POTENTIAL PROBLEMS: This is also a conceptually difficult exercise for some. Have participants review the sample matrix carefully, and be generous with time for questions. Emphasize that change does not occur in a vacuum; this exercise allows participants to consider how changing the structures of reality will change the impacts of their vision on the judicial system and the community.
WHAT COULD NEVER HAPPEN

This is an exercise in reversal, that is, in restating the negative as a positive. We have all experienced situations in which we thought, "Well, this could be really good if we just changed this one thing....but it'll never happen."

What "could never happen" in your community, state, business, organization, or agency? The recorder will write "IT COULD NEVER HAPPEN THAT..." across the top of the sheet of newsprint at her easel. Brainstorm a list of events to fill in that blank.

For example, within, say, the local university, it could never happen that:
-- staff has enough office space;
-- the library has sufficient funds to buy, store, and replace all the books requested by faculty and students;
-- all the instructional media devices are all working when needed;
-- more time is spent on teaching and research than administration;
-- new instructional technologies are adopted, and staff are trained in their use, as quickly as they become available;

etc.

Once you've brainstormed a list of events that could never happen, read them back to yourselves WITHOUT that header. What have you got? Does this list of positive statements encompass all the changes that you would like to see? What of your goals and ideals have you left out?

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: WHAT COULD NEVER HAPPEN

OBJECTIVE: This exercise enables people to use their skepticism and doubts to generate positive images of change. It also helps them to understand where resignation to the status quo may prevent them from creatively envisioning a more positive future.

TIME REQUIREMENTS: Because this exercise is rather a one-trick pony, it wears thin when extended; try to stay within fifteen minutes.

NUMBER OF PEOPLE: This works best in groups of twelve to fifteen or less, although it could be used very quickly and superficially to make a point to a larger group [obviously, you would not be able to take suggestions from everyone when using this in plenary].

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: No particular set-up is required, unless a larger group needs to break up into working groups, in which case participants need to rearrange their chairs and facilitators check to make sure they have the necessary material requirements.

POTENTIAL PROBLEMS: This exercise is based on a trick of grammar, and it will take some people much longer to get it than others. After the first few examples of "translation" from negative to positive that the facilitator provides, most people will be able to use the pattern of reversal involved. If some are still confused, the facilitator may want to take a minute to go over a few examples. Also, it is entirely possible for some participants to add items to the list while remaining skeptical about the concept of clarifying ideals, goals, and positive images for the future, and those nagging doubts may emerge during the brainstorming. Remind the doubters that we are taking the luxury of being idealists for a short time to help generate new ideas and innovations, before returning to the practical activities of evaluating and planning implementation.
TAKING TRENDS TO EXTREMES

We are going to practice pushing the edge of the envelope in asking "what if?" Remember, the one thing we can say about the future is that it will be very different from the present. In order to exercise our ability to imagine that difference, we are going to assume that the trends of change and emerging issues (see selection from trends list on page 260) all accelerate over the next twenty years. What sort of futures might those accelerated trends create?

Consider the following five trends, each of which is an emerging issue in the present. Re-state each trend to express extreme growth by 2015, e.g.,

Trend: more and more people require vision correction of some sort.
Extreme: by 2015, everyone will require vision correction of some sort (2020 vision will be a rarity).

Trend: more and more companies are subcontracting work to free agents, consultants, and temporary agencies.
Extreme: by 2015, 75% of the work force will work temporary positions.

Participants should work quickly to rewrite the trends to their extremes, and, whenever possible, offer a measurable benchmark for the amount of change.

Second, the group should consider each extreme statement, and brainstorm a short list of potential implications of changes so sweeping.

Extreme: by 2015, everyone will require vision correction of some sort.
-- 50% of population has undergone corrective opthalmological surgery becomes;
-- intensive investigation of genetic codes for vision unlocks potential genetic therapy for nearsightedness, glaucoma, etc.;
-- Bausch & Lomb are as big as IBM;
-- glasses are considered sexy.

And remember, any useful statement about the future should appear to be ridiculous -- if it doesn't make the rest of the group laugh, you've probably made a statement about the present! Now, having made yourself laugh, say these mini-scenarios come true: consider the implications for your group.

TAKE THIRTY MINUTES.
RESOURCE SHEET: TAKING TRENDS TO EXTREMES

OBJECTIVE: This exercise offers participants practice at extrapolation and speculation, from a launch point of identified trends and emerging issues. Facilitators should work to develop and hone participants' ability to ask, "what if?" It can also serve as a first step in building scenarios of alternative futures.

TIME REQUIREMENTS: This exercise requires people to think a little more than straight brainstorming does, in actually extrapolating trends and stating their extremes in measurable terms; some discussion for clarification is likely to result. But participants should be easily able to think up five to seven extreme statements of trends, with three to five attendant implications each, in thirty minutes.

NUMBER OF PEOPLE: This works best as the focus of a working group of twelve to fifteen, or less.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: The facilitator and organizers should work together in advance to pick trends related to the focus of the workshop and the participants. The recorder should write brief descriptions of five to seven trends on pieces of newsprint, and tape them to the wall where everyone can see them. Before the brainstorming starts, she should jot down key words identifying the first trend at the top of the easel newsprint. As participants suggest "extremes," she should jot those down, followed by the implications suggested. She repeats this pattern until the group has expanded all the trends listed, or run out of time [the facilitator should adjust the number of trends addressed to suit the speed of the exercise and the time remaining].

POTENTIAL PROBLEMS: This can be sabotaged by the "that could never happen" mindsets among some participants. Remind them that this is an exercise in imagination -- and offer them some examples of the absurdity of change from history: the growth to ubiquity of the personal computer is a good everyday example. Stress that the exercise is supposed to enhance creativity and make people laugh, first; the facilitator can point out practical applications of considering long-range trends and their implications at the conclusion of the exercise.
ALTERNATIVE FUTURES I: Different Communities, Different Lifestyles
(refer to following pages, which describe five possible futures)

This exercise uses a foresight technique called INCASTING: thinking up the specific details of a possible future based on a more general scenario description. Incasting begins with an array of possible futures: several different scenarios, all based on observed trends and emerging issues in society, the economy, technological innovation, the environment, and political activity. Descriptions of five different POSSIBLE futures have been distributed. You and your working group have been assigned ONE of those five scenarios. IN USING SCENARIOS FOR THIS EXERCISE, IT IS IMPORTANT THAT YOU SUSPEND ALL DISBELIEF. DO NOT ASK HOW THIS FUTURE CAME TO EXIST; DO NOT QUESTION ITS FUNDAMENTAL ASSUMPTIONS: YOU HAVE AWAKENED TO FIND YOURSELF LIVING IN IT. WHAT IS IT LIKE?

Each group should designate one person to act as your group’s recorder. Imagine what your community, your homes, schools, shopping centers, and local government would look like given the assumptions of your assigned future, and then answer the three questions below. Feel free to elaborate in specific detail, and to take details to their logical, if extreme, conclusions. Remember that some traditional activities, services, buildings, and roles may disappear entirely in this scenario. Some activities, places, and organizations may be transformed, existing in this future in an entirely new form. And this future may compel the creation of entirely new roles, forms, and functions in the fabric of your community and your community’s government. Exceed the boundaries of the present wherever you like: your suggestions only need to be logically consistent with the assumptions of the given scenario.

WHAT ARE THE MAJOR STRUCTURAL DIFFERENCES BETWEEN YOUR COMMUNITY IN THIS SCENARIO, AND YOUR COMMUNITY AS IT EXISTS AT PRESENT?

HOW DOES COMMUNITY PLANNING IN THIS SCENARIO DIFFER FROM COMMUNITY PLANNING AS IT OCCURS NOW?

HOW WOULD YOUR NEIGHBORHOOD CHANGE GIVEN THE ASSUMPTIONS OF THIS FUTURE?

Have your recorder highlight the key points of your group’s discussion, and be prepared to report back to the group as a whole.

TAKE FORTY-FIVE MINUTES.
RESOURCE SHEET: ALTERNATIVE FUTURES I

OBJECTIVE: To help participants begin to revision and redesign their community; to challenge their ability to adapt to radically changed circumstances; and to develop participants’ imaginative and scenario building skills. This exercise really asks people to accept the possibility that the future will be very, very different, in many different ways.

TIME REQUIREMENTS: 45 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small discussion groups.

MATERIAL REQUIREMENTS: At least one easel, newsprint pad, and three or four different colored magic markers per small group; and masking tape.

SET UP: Split people up into working groups and ask each group to choose a recorder. This exercise goes much faster if people have had the opportunity to study the scenarios the night before. If not, you will have to allot some extra time for each group to read and review their assigned scenario. For your own preparation as facilitator, refer to OSP Scenario Building Final Project Report, available from the Hawaii Research Center for Futures Studies.

POTENTIAL PROBLEMS: The primary difficulty facilitators face with this exercise is the refusal of some participants to suspend their disbelief. Some participants will want to question how the scenario came into existence, or dispute specific details. Emphasize that appropriate behavior for this exercise is to accept the conditions described as given, and to imagine what it would feel like to work under those conditions, how they would play out in day-to-day details, and what adaptive responses participants could make as judicial professionals in that future. To help you help participants make this imaginative leap, you might informally canvas participants in advance to see if any of them are science fiction fans: they will grasp the gist of this exercise fairly quickly, and can help act as “tour guides” to the future.
ALTERNATIVE FUTURES SCENARIOS

The Continued Growth Future

"Continued Growth" describes a future in which the global economic system becomes more and more efficient and effective at mass production, distribution, and marketing: the extreme outgrowth of the global mass media/consumption trends. The late '80's and '90's saw increasing privatization of government services, in an attempt to cut back on government spending and the federal deficit. "Education Alternatives, Inc." was brought to court in 2012 on charges of monopolizing the primary and secondary education sector. The Fortune 500 added so many employee amenities to their benefits packages that corporate citizenship became more important than country of origin. The result was the growth of corporate nation-states, and global market integration and homogenization. Technological innovations went swiftly from lab to production line to market, and global market saturation time for new consumer products has dropped to less than one year. The rich and the poor have better access to more goods, and the elite are now those who command the corporations' executive privileges. Environmental preservation occurs only insofar as it maintains comparative economic advantage.

The Decline and Collapse Future

"Decline and Collapse" describes a future of global breakdown: a worldwide depression at the turn of the millenium caused the collapse of the international economic system. This collapse was made worse by terrorism, wars, and environmental problems. Technological systems and communications links broke down; international production and distribution of goods collapsed, as did the internal distribution of goods in many countries. Social structures also frayed and disintegrated; life in general became more primitive. Countries became isolated from each other, and communities became isolated within countries. This scenario sees the return of city-states, clan systems, and roving bands of refugee nomads on both land and sea.

The Green Future

The "Green" scenario is sometimes called a "conserver society." The undeniable environmental changes witnessed around the globe in the 90's shifted values everywhere away from materialism, and toward an intense respect for the environment. This respect translated into the use of appropriate technologies, development of ecologically friendly technologies, and the resurrection of traditional modes of relating respectfully to nature. More and more human communities scaled down from metropolises to towns. Socialization stressed self-sufficiency, re-use of material goods, and nurturing the biosphere. As a result of the shift away from materialism, a much higher value came to be placed on learning and the arts.
ALTERNATIVE FUTURES SCENARIOS, continued

The Disciplined Society Future
In the "Disciplined Society," worldwide trends in political extremism, nationalism, ethnocentrism, and religious fundamentalism escalated and in countries all over the world conservative nationalists seized power. Societies became more and more conservative, more focused on traditional mores and modes of life, with only a very narrow range of behaviors, beliefs, and political ideologies considered acceptable in communities where the ethno-fundamentalists hold power. Art and expressive communication are cramped and censored to support political and philosophical regimes. Control of production became concentrated in the hands of a few charismatic leaders who hobble economic action with political rules. This scenario's societies are not poor, as are those in the collapse scenario, but neither are they as respectful of the environment as those communities in the green scenario.

The High Technology Transformational Future
The transformative powers of technological innovation characterize the "High Tech" scenario. Human inventiveness triumphed, and advances in energy production, such as cheap fusion power, have given the world clean, abundant supplies of energy. Advances in microprocessing, such as robotics, artificial intelligence, and nanotechnologies, have given humanity very precise, automated control over all our environments. Advances in genetic engineering and the biological sciences have given us very precise control over our bodies, and our definitions of who and what we are. Advances in telecommunications, such as high definition, multi-sense holography and virtual reality, let us create versions of our inner visions and fantasies so real many people have ceased to interact with "real" social reality. International data and telecommunications networks have expanded so that everyone may now freely share information and opinions: regional and global direct democracies have become the most common form of governance. As for the environment, respect for the environment is just part of rational environmental management -- which is handled mostly by the artificial intelligences anyway.
This exercise uses a foresight technique called **INCASTING**: thinking up the specific details of a possible future based on a more general scenario description. Incasting begins with an array of possible futures: several different scenarios, all based on observed trends and emerging issues in society, the economy, technological innovation, the environment, and political activity.

Descriptions of five different POSSIBLE futures have been distributed. You and your working group have been assigned ONE of those five scenarios. **IN USING SCENARIOS FOR THIS EXERCISE, IT IS IMPORTANT THAT YOU SUSPEND ALL DISBELIEF. DO NOT ASK HOW THIS FUTURE CAME TO EXIST; DO NOT QUESTION ITS FUNDAMENTAL ASSUMPTIONS: YOU HAVE AWAKENED TO FIND YOURSELF LIVING IN IT. WHAT IS IT LIKE?**

Each group should designate one person to act as your group’s recorder. Your assignment is to draft three “future headlines” that succinctly and vividly express what justice and the courts are like in this future. Try to design a cover page for Newsweek in 2020 (or its functional equivalent); a banner headline for the New York Times in 2020 (or its equivalent); and a headline for your local newspaper or the Advertiser/Star-Bulletin. The adventurous may try their hands at a 2020 New Yorker cartoon.

Imagine what celebrations, awards, critical issues, crimes, political controversies, or other newsworthy community events might occur in this future. Take details to their logical, if extreme, conclusions. Remember that some traditional activities, offices, organizations, and lifestyles may disappear entirely in this scenario. Some lifestyles and activities may be transformed, existing in this future in an entirely new form. And this future may compel the creation of entirely new offices, services, businesses, schools, and activities in the fabric of your community. Exceed the boundaries of the present wherever your like: your suggestions only need to be logically consistent with the assumptions of the given scenario.

**WHAT NEW ACTIVITIES (LEARNING, RECREATION, ECONOMIC, ARTISTIC) HAVE ARISEN IN YOUR COMMUNITY GIVEN THIS SCENARIO?**

**WHAT NEW TENSIONS/PROBLEMS EXIST IN YOUR COMMUNITY IN THIS SCENARIO?**

Be prepared to present your headlines and cartoons to the group as a whole.

**TAKE THIRTY MINUTES.**
RESOURCE SHEET: ALTERNATIVE FUTURES II

OBJECTIVE: To help participants re-vision and redesign their community, identify critical issues in changed milieux, and develop their scenario-building skills.

TIME REQUIREMENTS: 30 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small discussion groups.

MATERIAL REQUIREMENTS: At least one easel, newsprint pad, and three or four different colored magic markers per small group; and masking tape.

SET UP: Split people up into working groups and ask each group to choose a recorder. This exercise goes much faster if people have had the opportunity to study the scenarios the night before. If not, you will have to allot some extra time for each group to read and review their assigned scenario. For your own preparation as facilitator, refer to OSP Scenario Building Final Project Report, available from the Hawaii Research Center for Futures Studies.

POTENTIAL PROBLEMS: The primary difficulty facilitators face with this exercise is the refusal of some participants to suspend their disbelief. Some participants will want to question how the scenario came into existence, or dispute specific details. Emphasize that appropriate behavior for this exercise is to accept the conditions described as given, and to imagine what it would feel like to work under those conditions, how they would play out in day-to-day details, and what adaptive responses participants could make as judicial professionals in that future. To help you help participants make this imaginative leap, you might informally canvas participants in advance to see if any of them are science fiction fans: they will grasp the gist of this exercise fairly quickly, and can help act as "tour guides" to the future.
REVERSE THE NEGATIVE

This is a very simple exercise, with roots in de Bono's work on lateral thinking as well as the workshop techniques of Robert Jungk, and Elise Boulding and Warren Zeigler. Many of us are concerned about the future, and motivated to envision a better future, because of our fears and worries about the present. Those fears and worries comprise the nucleus of what we most want to change about the world, and thus offer a springboard to a clear statement of ideals and goals.

First, spend about five or six minutes brainstorming everyone's fears and worries concerning the future of their community, organization, agency, or business. What are you most afraid of? What are the worst things that could happen over the next few years? e.g.,

-- the rate of teen-age pregnancy triples; or
-- the cost of housing equals 75% of the median income; or
-- crowded conditions and overdevelopment cause a 60% decrease in tourism; etc.

While the items don't need to be stated in quantifiable or measurable terms, it makes them more vivid if you do. Post that list on the wall where everyone can see it.

Next, work down the fears list item by item, and restate every fear as its positive opposite, e.g.,

-- all children born are wanted, and have parents fully capable of providing adequate nurturance, security, and support; or
-- housing is readily available, and costs no more than one-quarter of monthly income; or
-- managed development and environmental stewardship increase highly lucrative eco-tourism and "spa" tourism; etc.

Consider your list of "positive opposites" -- do they comprise a workable "rough draft" of a positive vision of your community's future? What's been left out? What would you add, or amend?

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: REVERSE THE NEGATIVE

OBJECTIVE: Katharsis; getting our worst fears and worries articulated and on the table, and demonstrating that we can use that understanding to point the way to a vision of a preferred future.

TIME REQUIREMENTS: This can easily be done in fifteen minutes [warning: you can easily go on for thirty, too!].

NUMBER OF PEOPLE: This works in groups all the way up to thirty; in fact, it may be too soon over in groups of five or less.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: No special set-up is required, aside from the participants being grouped in their chairs in a semi-circle, focussed on the easel.

POTENTIAL PROBLEMS: This is meant to work as a quick warmup exercise, and as such works well. The skeptical and cynical can perceive this as glib and simplistic (which, in one sense, it may well be -- but it works to stretch the mind to admit ideals which our professional environment of practicality often squashes in us); the best way to stave off that problem is well in advance of the workshop: make sure only people who want to engage in visioning, and know what it entails, participate. You can't force people to vision.
TRENDS FOR 21ST CENTURY COMMUNITY DESIGN

This exercise asks us to consider what we think are positive trends, that might support our preferred image of the future, or vision. If our subsequent planning to achieve our defined vision suggests we should encourage one or more of these trends, which would we pick, and what trade-offs might we have to make in terms of potential negative impacts?

Each working group member should pick one trend that they consider most critical to the successful creation of a positive future; the recorder will make a list. Where duplicates are suggested, the second or third nominator does NOT offer a second choice; the extra nominations are simply noted next to the trend. Take five minutes.

Quickly brainstorm one potential positive impact, and one potential negative impact, for each trend (a plus/minus column across from the trends list). Take five minutes.

Given the potential trade-offs, which trends would the group work to encourage, and which would they work to discourage? Take a straw poll: participants may vote three trends in as keepers. Take five minutes.

Do you agree or disagree with the group vote? Why? Which trends would you encourage in hopes that their impacts would contribute positively to your personal vision?

TAKE FIFTEEN MINUTES.
RESOURCE SHEET: TRENDS FOR 21ST CENTURY COMMUNITY DESIGN

OBJECTIVE: To begin to consider trends of change that might contribute to the creation of an envisioned future; to weigh both the opportunities and threats inherent in each trend, and consider the trade-offs required in encouraging trends with positive impacts that will come packaged with negative side-effects as well.

TIME REQUIREMENTS: This is just meant to offer a brief example of using "what if" thinking to broaden vision, and building into the vision possible anchors to the present which may be useful during planning and implementation. As a brief example, it should not exceed fifteen minutes in the group, although people should certainly be encouraged to continue the exercise outside the workshop if they find it valuable.

NUMBER OF PEOPLE: This tends to elicit the kind of brainstorming that borders on discussion, and thus is unsuited to large groups: use it in small workshops, or focus groups under twelve to fifteen.

MATERIAL REQUIREMENTS: An easel, newsprint pad, masking tape, and magic markers, to record the brainstorming.

SET UP: The facilitator and organizers should work together prior to the workshop to choose twenty trends relevant to the concerns of the workshop group (page 260 offers an example trends list; The Futurist also has one issue per year that summarizes trends identified that year); this saves the exercise time for brainstorming. The recorder may wish to prepare a few sheets of newsprint with plus/minus columns on them, so she may simply write in the key words identifying the trend on the left, and jot down brief descriptions of positive and negative impacts in the columns to the right.

POTENTIAL PROBLEMS: This is rather a complex process to move through quickly; make sure you explain the exercise clearly in advance, using the recorder's prepared newsprint as an illustration.
PERSONAL VISION WORKSHEET

Begin by visualizing: what image/images best sum up for you an ideal plan for your community? How would you draw the relationship among people involved in your ideal community? Be abstract or representational as the mood strikes. And remember, in this workshop, EVERYBODY can draw! We all can draw circles, arrows, triangles, boxes, stick figures, sunshine, doors, etc. Use what you can to express your ideals graphically.

After you have drawn something, then resort to words to clarify and add details to your ideal community. Remember, you are trying to convey your goals, your dreams, and what you would most like your community to be and to achieve.

You might begin by asking yourself the following questions. In your vision for the future of your community:

What are the three most critical values embodied by your vision?

What is the primary goal of your community vision?

Who are the primary beneficiaries of this visionary community design?

How are people involved in planning, enhancing, and building the community in this vision?

TAKE SIXTY MINUTES.
RESOURCE SHEET: PERSONAL VISION WORKSHEET

OBJECTIVE: To allow participants time to articulate and express the characteristics that make a community the best it could be from their perspective; to identify the characteristics of a desirable community of the future.

TIME REQUIREMENTS: 60 minutes.

NUMBER OF PEOPLE: Individuals; for this exercise, participants work on their own, focussing on their own hopes and dreams for the judicial system.

MATERIAL REQUIREMENTS: Each participant will need a sheet of newsprint and several colors of magic markers.

SET UP: Tell everyone to find a comfortable seat; a comfortable corner of the floor; a place to lie down, close their eyes and visualize; or whatever environment they need to let their imaginations run riot. Reinforce the idea that they should express their idea of the best their community can be: a plausible ideal for their neighborhood. Briefly remind them of the emerging trends of change, the array of alternative futures possible, and the ideas they generated in removing constraints on their thinking. Explain that appropriate behavior in this exercise is getting "out far enough;" inappropriate behavior is "not out far enough." And encourage people to draw!

POTENTIAL PROBLEMS: Most professionals are very verbal. Many will express themselves in terms of lists, organizational charts, or other collections of words. If you have time, try a "warm-up" drawing exercise: give everyone an extra sheet of newsprint and take five minutes to practice drawing straight lines, squiggly lines, circles, squares, triangles, and stick figures.
GROUP VISION DEVELOPMENT
FIVE STEPS; TAKE SEVENTY-FIVE MINUTES

Share Visions Choose a group recorder. Then start by sharing the personal vision statements drafted by participants in your group. One by one, describe / portray / pantomime your visions for the rest of your group. As you work your way around the group, look for themes or components common across the personal visions. Have your group recorder note down common themes and components. TWENTY MINUTES.

Identify Common Elements After everyone finishes presenting, the group should have a sense of the common elements. Do you all agree that these ARE common elements? Is everyone comfortable with the list as written, or would people like the opportunity to cull some items via a straw vote? TEN MINUTES.

Devise an Overall Structure After everyone is satisfied with the common elements list, tape a large (3' X 7' or 4' X 6') piece of butcher paper to the wall, and break out the magic markers again. Discuss ways in which the common elements might fit together. Try to arrange them to form the backbone of your vision. Or, to escape the linear, arrange the common elements as the hub and spokes of your vision. Use whatever geometry makes the most sense to your group. FIFTEEN MINUTES

Fill in Details Near each common theme, display specific ideas the group as a whole finds compelling. Grab ideas / images / phrases you loved from other people’s work, or start from scratch, sketching pictures / diagrams / cartoons near each common theme. Map out your vision, connecting the sketches and diagrams with lines and, where necessary, words, to indicate the relationship of the common elements to each other. What key components of an ideal community are still missing? What visual details can you add to your sketch that clarify your group vision? FIFTEEN MINUTES

Review; Critique; Adjust Now let everyone step back and review the rough draft. If anyone in your group wants to question or object to any vision element, have them jot their question or objection down on a 2" x 2" post-it and stick it directly onto the vision mural. Then discuss the objections and questions one by one. Work to negotiate clarifications or qualifications until all the post-its have been removed from the vision mural. FIFTEEN MINUTES
RESOURCE SHEET: GROUP VISION DEVELOPMENT

OBJECTIVE: To work with other people identifying common themes across individual vision statements, agree on related details, and to work together to clarify and expand those details.

TIME REQUIREMENTS: 75 minutes.

NUMBER OF PEOPLE: Initially, 4 to 6 people (the workshop in small discussion groups); when synthesizing a community vision for the workshop as a whole, you essentially repeat this exercise with each small group reporting as an individual.

MATERIAL REQUIREMENTS: Per working group, an easel with newsprint; a large sheet of butcher paper, three or four feet wide by six or seven feet long; one or two full-spectrum sets of water color magic markers; pens or pencils and two "post-it" pads; and masking tape.

SET UP: This works very well in one very large room, say a ballroom or auditorium. With four working groups, assign each working group its own corner. People should hang their individual vision images on the walls of their corner, creating a "vision gallery." The group’s recorder should position the easel so that he or she can easily listen as people explain their visions, and jot down notes about common themes.

POTENTIAL PROBLEMS: Six people can complete this within seventy-five minutes; with large working groups, you will need to schedule more time, say an extra fifteen minutes per every two people you add above six. Political agendas and institutional infighting can potentially surface in this exercise; assign participants with a long history of enmity or adversarial relationships to separate working groups. Encourage the group to be sensitive to the wide variety of people’s perspectives, concerns, and goals: the creative problem for this exercise is re-stating or re-configuring vision details that seem to conflict until they can work side-by-side.
FROM HERE TO THERE: NECESSARY PRECURSOR EVENTS

This exercise has two steps: 1) imagining the precursor events that are required to realize the vision of the community you’ve developed; and 2) arranging them on a timeline that spans the gap from your idealized vision back to the present.

1) You have described in detail your vision for the future of your community. Now you need to connect that vision to your current circumstances. You can do that by engaging in what is sometimes called “Apollo” forecasting: working backwards from ideal state or an imagined goal to the present. Look at the specific components of your vision. Next, ask yourself what event or condition must occur or exist before each vision component can become reality. List those events and conditions. Now ask yourself what in turn must exist or occur to bring about those precursor events and conditions. Continue this precursor brainstorming for thirty minutes.

2) Draw a timeline. Arrange your precursor events along the timeline in a logical fashion, with those immediately necessary for the vision twenty or so years out, and the items that build up the conditions necessary to achieve the vision closer to the present. Items closest to the present should be plausibly achievable within the next five years.

TAKE FORTY-FIVE MINUTES.
RESOURCE SHEET: FROM HERE TO THERE

OBJECTIVE: To focus participants on designing logical links between the present and the vision they have created, and to enhance group problem-solving and brainstorming skills.

TIME REQUIREMENTS: 45 minutes.

NUMBER OF PEOPLE: 4 to 6 people; the workshop breaks up into small working groups.

MATERIAL REQUIREMENTS: An easel with newsprint; magic markers; one large (3' X 5') sheet of butcher paper; masking tape; and "post-it" pads.

SET UP: Split people into working groups, if they are not already, and ask each group to choose a recorder. Participants should hang their large piece of paper on the wall at an easily accessible height. The group should quickly begin brainstorming their precursor events with the recorder jotting events down on the easel. After fifteen or twenty minutes, the group should draw its timeline, and then work to arrange the precursor events by jotting them on "post-it" notes and temporarily sticking them on the timeline. When events are arranged to everyone's satisfaction, participants can write them permanently in appropriate positions on the timeline.

POTENTIAL PROBLEMS: Conceptually, this exercise is quite difficult: working backwards is an unaccustomed mode for most people. The key question is, "What do we need to do before our goal of X can occur?" The best help is a good example; if you have a long-range plan from a local community group, illustrate with the ladder of tactics and strategies the local group has mapped out to reach one of its goals. If not, use the Apollo moon landing itself: before landing a man on the moon, men had to orbit the moon; in order for that to happen, we had to calculate trajectories, planetary orbits, and effective speeds; we had to build a space ship that could both orbit and land; we had to get that space ship from earth to orbit, and hence had to build a rocket capable of carrying it; in order to build that rocket, we had to design it; in order to design it, we had to organize and hire engineering teams; in order to hire engineering teams, we had to allocate government funds; in order to have funds to allocate, we had to convince Congress to vote for the project. Etc.
WHERE WE CAN START

Your group now has a sketch for a vision of the best your community can be. You may also have a timeline which suggests precursor events or conditions required to achieve that vision. From either your vision or the timeline, choose a component or condition that seems plausibly achievable; consider it a goal. What resources can your group marshall to reach it? Brainstorm to identify resources in the following areas:

**Action Resources:** What current programs, projects, research, or innovations could you adapt to produce that precursor?

**Program Resources:** Are any funds, staff, or equipment already in use for similar purposes? Are any special project funds available that you could tap? Any volunteer groups already working in similar areas?

**Allies:** Who can help by participating, legitimating, rallying support?
- Governor, Mayors, County Administrators?
- Legislature, City Council?
- Local Businesses, Rotary Club, other community organizations?
- Schools, Community Colleges, Universities, extension agencies?
- Churches, Public Service Groups, volunteer organizations?
- Media?

**Action Setting(s):** Where could you most effectively work to create this required precursor?
- Federal Government, State Government, City and County Governments, schools, churches, volunteer organizations, at home?

Summarize your resource list and report back to the group as a whole. The facilitator will compile a list of suggested goals and resources.

TAKE THIRTY MINUTES.
RESOURCE SHEET: WHERE WE CAN START

OBJECTIVE: To identify resources, allies, and action settings that will contribute to achieving the foundation of the vision; to outline initial objectives and next steps in building the vision.

TIME REQUIREMENTS: 30 minutes.

NUMBER OF PEOPLE: The entire workshop, or small working groups of 4 to 6 people.

MATERIAL REQUIREMENTS: An easel with newsprint; magic markers; masking tape.

SET UP: This exercise is basically four related brainstorming exercises. It will work with the workshop as a whole, if you have two recorders to alternate jotting ideas down. In small working groups, one group recorder will suffice. Remind participants to focus on programs, activities, resources, and people that are already related to, or interested in, the vision goals: this exercise helps jumpstart progress towards the vision by identifying immediately useful resources for vision-building.

POTENTIAL PROBLEMS: This exercise requires people to come back down to earth after energizing themselves in the realms of the ideal. This is also the point where all the "yes, but..." mindsets, if they have been restrained during the rest of the workshop, will burst their restraints. Encourage people to focus on positive resources, by asking them what successes they have had in the past in similar areas of work: who supported those successes? what resources made past successes possible?
WHAT WE CAN DO NOW

Review the draft vision. You may also have a timeline or a goals/resources list. As an individual, jot down a list of immediate actions you can take that would support creation of the vision as a whole; of a specific vision component; or support achievement of an identified goal. Estimate when you could begin, and how many hours per month it would take to follow through.

<table>
<thead>
<tr>
<th>Action</th>
<th>Start Date</th>
<th>Hours per Month</th>
</tr>
</thead>
</table>

Take fifteen minutes. Review your list; which of the possible actions would you most enjoy doing? Which could you achieve most quickly? Using whatever criteria you like, pick one action you are willing to undertake for the sake of creating your vision.

The facilitator will compile a list of names, activities volunteered, and estimated start dates. To complete the exercise, the group as a whole should devise a way to monitor progress towards the vision, e.g., meeting again in a month and reporting back on actions taken.

TAKE FORTY-FIVE MINUTES.
RESOURCE SHEET: WHAT WE CAN DO NOW

OBJECTIVE: To list the actions that participants could actually take to achieve the initial vision objectives, estimate the time it might take to complete those actions, and ask for participant commitment to specific actions.

TIME REQUIREMENTS: 45 minutes.

NUMBER OF PEOPLE: The workshop as a whole, or small working groups of 4 to 6 people.

MATERIAL REQUIREMENTS: An easel with newsprint; magic markers; masking tape.

SET UP: This exercise is basically four related brainstorming exercises. It will work with the workshop as a whole, if you have two recorders to alternate recording the ideas. In small working groups, one group recorder will suffice. This exercises focusses the ally/resource/action setting questions of the "Where We Can Start" exercise down to the level of the individual participant. You are asking them to commit to building the vision. This is best done after the workshop participants have had the opportunity for one major reflection period discussing the draft vision.

POTENTIAL PROBLEMS: People may be reluctant to commit to working on building the vision, or even refining it more. If this is the case, it is because unresolved tensions, questions, or disagreements remain from the group vision exercise: you need to revisit "Reviewing; Critiquing; Adjusting" the vision until everyone is comfortable with it -- or at least enough people are comfortable that they will set a leadership example by offering commitment to next steps. Some people simply will not commit at this stage, and you should not expect it of every participant.
Micronesian Diplomatic Training Program, August 1990

Trends in the Past 20 Years: areas of change
1) Economic Change
2) Political Change
3) Demography
4) Education
5) Health
6) Technology
7) Environmental Change
8) Migration
9) Transportation

Changes in the last 20-30 years:

- Economic: moving from government to private services; more businesses, more jobs, more investment, and more AID funds
- Health: changes in diet (from taro, indigenous foods to canned goods & sweets)
  -- new diseases and illnesses;
  -- more sedentary
- Environment: imported consumer goods causing more trash; pollution
- Transportation/Telecommunications: more cars and roads
- Political/Cultural: a change in government status from trust territories to sovereign states
- Social Problems: drug use and drinking increased; suicide rate up; generation gap; family disintegrating (from a communal, sharing society to an individual, selfish one)
- Migration to Urban Centers: population moving towards perceived job opportunities
- Education: better quality; more students; more opportunities
GENERAL:
- More land erosion
- Extended family ties degrading
- Crime rate up
- Increased dependency on foreign aid
- Changes in lifestyle (people more worried about appearance)
- More foreigners
- More religions
- Changing values (now, time = $$$$)
- Governments
- More imported food
- More educated people
- Less emphasis on customs & culture
- Employment up
- Shift in population to district center
- Improved medical care
- Suicide rate increased
- Modern transportation
- Improved communications
- Better housing
- More pollution
- More telephones
- Availability of TV, Nintendo changing kids' play
- Housing more available, improved: Western-style houses
- Regional relations improved
- Sources of aid diversified

CHANGES IN THE NEXT 30 YEARS:
- Micronesians on the moon
- Undersea mapping leading to more underwater discoveries
- More kids educated at home with advances in telecommunications technologies and computers
- Self-reliance established
- Civil wars and religious revolutions
- Houseboats in lagoons
- Survival: big activity after holocaust
- Selling of citizenships
- Underwater communities
- Global time travel
- Younger generation more advanced
- Regional political power enhanced: "brown power" worldwide leads to a new "Bronze Age"
- Genetic engineering
- Discovering gold mine in the Pacific (seabed and other sites)
- Gambling increased
- More marine mining
- Global governance initiatives/activities increased
- Diversity of religions increased
- More governments based on religions
- Extinction of certain life forms
- Waikiki-ization of Pacific cities
- Health consciousness increases
- Robots walking around
- Leisure activities valued over work
- Youth in power
- Survival of best-trained: highly competitive society
- Cure for AIDS
- Discovering new worlds
- One-man government (dictatorships)
- Artificial intelligence used over human capabilities
- Trash to energy power plants
- Recycling
- Women's domination (brown women's power)
- AIDS kills 1/2 of Pacific population
- Fading away of Micronesian race
- Submerging of Micronesian islands

ALTERNATIVE FUTURES (Continued Growth, Conserver, Disciplined, Transformational)

Family

Continued Growth
- Breaking up extended family
- Commodifying land; monetary value of land becomes more important
- Lose interest in kinship
- Oldest gets control of the land
- Less community distribution of goods

[Questions: more or fewer kids?...]

Conserver
- Communal setting
- Greater inter-, intra-family ties
- Satisfy basic human needs
- Lifestyle simpler; more subsistence activities

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(Closer to traditional lifestyle: fewer commercial goods, more recycling, composting, more use of natural goods, less clothing)

[Questions: more or fewer kids? More kids; more support for self-reliance, care of elders....]

Disciplined
Father has tight control
Very hierarchical, patriarchal, authoritarian
No children out of wedlock
[Questions: what about orphans? Adopted into family....]

Transformational
No extended family
Less traditional, less personal contact; reliance on robots for child-care, mail-order and test-tube babies (child with different options -- specify on order)

Work

Continued Growth
Increase in wages; better conditions
Improved technology (will replace skilled labor); more people demanding work, questions on legal rights to employment
Required equality of education for workers
Lower minimum entry age for workers
Women advantaged: nurturers/mentors of artificial life

Conserver
Work simpler: using less machinery, only hand tools and appropriate technology, with more emphasis on manpower
Women as mothers, work shared

Disciplined
Work divided, compartmentalized
Process faster, more efficient
No alien workers (to prevent expatriation of wages)
No cigarette/coffee breaks
Minimum privileges/negative incentives
Women: equal share of time worked; tasks different

Transformational
Automated; humans do research, entertainment
But machines make products and do repair work themselves
No 9-to-5; all flextime

Foreign Relations

Continued Growth
  Increased diplomatic relations, greater recognition internationally and regionally; increased trade relations
  Emphasis on good (friendly) relationships
  Government and corporate diplomatic corps

Conserver
  Foreign relations activities focus on protecting society from outside influences, cutting society off from relations with other countries (or at least much more selective)
  Possibly relations encouraged with other countries with conserver values, way of life

Disciplined
  Very strict on travel, both visas in and permission to leave
  Very suspicious, selective about who they establish external relations with

Transformational
  Highly sophisticated information network leads to strong, close relationships with other nations
  Global council will handle disputes over information and technological territory and has jurisdiction over mechanical spies
  Globalist perspectives generally

Other Domains

Conserver
  Education: introduces new ideas, so no longer send children abroad, instead orienting domestic education to maintain survival skills in self-reliance, basic needs
  Black magic studies: skills in traditional spiritual practices used as requirement to keep foreigners at a disadvantage or out of society entirely
Micronesian Diplomatic Training Program - December 1990

CHANGES IN THE LAST 30; 20; 10 YEARS
- Thatch to brick houses
- Communications now easy to outer islands (more access)
- Political status
- Girls less reserved (have been revolutionized)
- Girls better looking
- Transportational (from slow canoes to broken airplanes)
- Changes in family relations: divorce increase (depends on island);
  nuclear family increase; extended family decrease
- Mimeographs to xerox
- Hand-held, coconut shell-heated irons to electric irons
- More people
- Coconut uses decrease; increase in use of kerosene, electricity
- More pollution, especially marine
- Economic changes - from subsistence to cash/commercial
- Dissemination of information from word-of-mouth to radio, telephone,
  media
- Government balance from traditional forms to "democratic" forms
- Outrigger canoe disappearing
- Movement from own-island focus to Pacific regionalism
- Cultural-clothing use increased; styles have changed; more choice
- Greater difference between urban and rural
- From country music to rock-and-roll
- More awareness of existence in world; less isolation
- More education
- Diet changes
- More diseases
- Decolonization

CHANGES YOU THINK WILL MOST AFFECT YOUR COUNTRY AND PACIFIC
IN NEXT 30 YEARS
- Political status of region and of individual Pacific-Island Nations increases
- Transportation and communication
- Environment: climate change and global warming
- Current political leaders age and out; the new generation takes over
- Alternative sources of energy
- Sea level rise
- Decline of US
- "Beam us up"; instant transport
- Contact with "E.T." (extraterrestrials, aliens)
- Population explosion (but more intelligent aliens will save us)
ALTERNATIVE FUTURES (Collapse, Transformation, Green)

Family Relations

Collapse
   Delicate, distant, self-interest-centered
   Mother, father, children
   "Nuclear family"

Transformation
   No more family
   "Brave new world"
   Five parents - test tube; anonymous sperm and egg donors; surrogate
   mothers and fathers
   Artificial family - no biological relationships
   One-parent families

Green
   Extended families; traditional (homes, elders strong)
   Mutual support
   The way it used to be

Work

Green
   More arts, handicraft; traditional skills taught
   Subsistence work
   Some academics, but more emphasis on traditional skills
   Love of tradition drives this

Transformation
   Planning and designing; robots do most work
   More production, less work by humans
   People press the buttons, robots work
   Women get lazy - no "labor"

Collapse
   1 - 12 yrs: training to be warriors (male and female)
   12 - 40 yrs: warriors (male and female)
   40+ yrs: trainers for youth; gather food
   Mother is head of household; father is housekeeper
   Little else to do
International Relations

Collapse
Independent and hostile
Collapse
Compacts (of free association) not renewed; "they made us fail"

Transformation
Close relationships
Great communication links
"Global" consciousness regardless of dependence or independence

Green
No need for Congress due to global world council
No independent nations or free association
No poor nations
Everyone as one, everyone equal

Other Domains

Religion
Green
Environmentalist dominate churches
Churches work closely with state to govern
(one disadvantage of green future - no Budweiser or beer, only sakau, pakalolo, jibanan)

Sports and Leisure
Collapse – Gladiators

Housing
Transformation – No problems
Housing planned to shelter workforce
Easy, quickly-built by robots

PREFERRED FUTURES

FSM
National Economy
- Strong, viable, self-sustaining (now, government only employer, like inverted pyramid)
- Privatization of tourism, fishing, agriculture
- Government subsidy only on small-scale

Government
- Maintain and enhance state, federal governments
- Work with private sector
- Work with outside governments; unilaterally and multi-laterally
- Ask for foreign aid on behalf of all citizens, regardless of state

Natural Environment
- Improvements to prevent soil/land erosion
- Improvement of channels for shipping
- Otherwise, leave alone

Religion
- Unify church system as a Council to assist in settling differences
- Council to accommodate all religions to bring people together

Men and Women
- Number of women increases in workforce; government
- Women leadership roles equal to men

PREFERRED FUTURES

RMI
National Economy
- Surplus money at end of every fiscal year; "just in case"
- Reduction of public service
- Privatization of feasible government funds
- Consolidation of government (ministries)

Community and National Health
- Medication available for all, as needed
- Low infant mortality
- Higher life expectancy

Religion
- One religion (Church of Marshall Islands) to promote harmony

Housing
- Decent housing available to all citizens (for married!)
- Combination of traditional, modern
- For anyone in RMI wherever needed
- Floating if needed
HEALTH PROMOTION AND EDUCATION DIVISION

Blue Group

OVERALL CONCEPTS
Families
Healthy Lifestyle
Environment
Affordable Housing
Education
Health Care for All
Different Cultures

GENERAL GOALS
All people would value their families, our environment and our world, healthy lifestyles, education, different cultures, and personal freedoms. Guaranteed rights would include:

- free health care with no culture/language barriers;
- quick diagnosis/treatment centers;
- free shelter/healthy foods;
- a clean and safe environment;
- a right to leisure time with no financial concerns.

HEALTHY HAWAII 2020: Details

- shaving: could take a pill to have hair grow only where you want it to;
- commute by mass transit; individual hovercrafts wind- or solar-powered;
- daycare: each business has their own daycare; less need for daycare: parents working less hours; babysitting clone (same as Mom); babysitting services;
- workday 10 hours, only four days a week;
- 25 hours a week would be full time;
- banks open 24 hours: no robot tellers;
- entertainment: more family functions; sports participation; NO TV; people in contact with people; exercises with family;
- education: TV education; more individualized attention; more efficient; no homework;
- exercise: dances with the community;
- sick: walk-in diagnosis by computers; NO cancer, NO AIDS, NO infectious diseases;
• better medical education: patient totally involved in treatment;
• crimes: pollution; not recycling; paying taxes; not respecting others; greed; wasting;
• teaching: self-sufficiency;
• fads: MTV, fast foods....
• leisure activities: walking, reading, educational videos;
• foods: high fiber; natural; no salt; fast food restaurants serving nutritious foods; low fat foods;
• purchasing: by computers at home; wouldn't even go to the store: food would be delivered; low cost;
• economy: companies pay for all food as benefits; coupons: get extra for recycling;
• government: by coops; MAFIA (Samoan);
• more efficient work;
• community exercise facilities: i.e., spa, parks....
• foods: high fiber, natural, no junk foods, no salts; public service for nutrition education;
• NO TV games: TV used for education as well as pleasure and exercise;
• NO tobacco or alcohol and drugs; use other activities to replace these, other stress relievers such as exercise;
• NO POLLUTION;
• NO garbage: recycle; have self-contained systems;
• NO CRIME;
• FREE HEALTH CARE;
• mass transit: no more cars; no individual transportation;
• nutritionists in the supermarkets;
• alternative forms of energy cheaper;
• affordable housing: own your own home;
• cure for AIDS • with no side effects;
• NO HOMELESS people;
• computerized purchasing; computerized society;
• mandatory exercise in workplace.

TIMELINE: 2020 TO 1990

ENVIRONMENT
• Total recycling; no pollution; all biodegradable; landscaping/green belts; no pests; no oil spills (alternative energy); no cars.
• no garbage collection: self-contained recycling/disposal unit;
• replace internal combustion engine with solar/wind/water power;
• eliminate pesticides: use natural pest controls;
• improve communications: utilize high tech advances;
• mass transportation: hovercraft, naturally powered; no roads.
2020: NO GARBAGE: all housing, business equipped with self-contained recycling/disposal units.
2015: LAST ROUND OF GARBAGE COLLECTION.
2005: Increased charges for garbage collection; service phasing out as state makes recycling/disposal units available to all; individual recycling/disposal system in use statewide; installation mandatory in construction of any new facilities.
2000: Invent individual recycling/disposal system.
   Invention of biodegradable replacements; packaging.
   Trial/pilot project of big self-sorting recycling/disposal system.
1995: Invention of large, commercial-scale self-sorting recycling/disposal system.
1990: Packaging material: biodegradable; used as compost, fuel, recycled for packaging, use as packing filler.

DAY CARE
2020: 24-hour respite care (with limits): staffed by community based/trained professionals.
2015: Community care facilities open 10 hours a day.
2010: Free onsite daycare for all; train 24-hour professional staff.
2005: Build worksite daycare facilities.
2000: Shorter work hours/full pay; free transport to/from work.
1995: Flextime and jobsharing the rule for all workers; train professional care givers.
1991: Parents involved in planning care centers: at worksite; within the community.
   No TVs/VCRs in care centers unless educational.

Chartreuse Group

OVERALL CONCEPTS & GENERAL GOALS
Disease-free for all: Free health care system which is participatory and compassionate.
Nurturing an environment tolerant to individual needs.
Working for the joy of it.
Intolerant of unhealthy conditions.
Respects ALL members, including kids.
Education enables ALL to maximize their potential.
More time for self and others (community and family).
HEALTHY HAWAII 2020: Details

Physical Environment
- all basic needs met: housing, food, etc.;
- pollution-free;
- design supports healthy lifestyle: clean transport, energy-efficient houses; bike paths, etc.;
- SAFE.

Technology
- bioengineering creates longer, higher quality, more productive life;
- house technology frees us from mundane housekeeping chores;
- worldwide communications systems at home, in education, in business;
- "thought" travels: "Beam me up, Scottie!;"
- Jetsons' dressing;
- cleansing & healing beams.

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- cleansing & healing beam (pleasure beam optional);
- house prepares meal: foods we love and lo-cal; eating is optional: can take nutritious pill instead;
- beam to jobs we love or work at home;
- ED/CC is flexible, available to all, high quality, & nurturing, with parental involvement; it honors individuals, difference, and emphasizes strengths;
- work is flexible, creative, & high tech;
- comms desirable: construction by desire and robots -- may not be necessary;
- leisure: human connections enhanced; physical activities: facilities accessible to all (beam on over); intellectual philosophizing;
- fads discouraged: video games; smoking; junk foods; bad drugs and alcohol;
- no currency exchange: equitable distribution of resources;
- most important service is child care, education, health education and care;
- beam wherever you want for lunch and eat whatever you want (even cake);
- free health care/maintenance for all: comprehensive, preventive, focused on stress reduction, overall lifestyle;
- holographic TV, choosing whatever you want.
- a community that allows and encourages everyone to reach his/her maximum potential
- change in genetic engineering, including smart pills, plastic surgery, etc.
- economically self-sufficient, can meet basic needs; allows us to give to others

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• travel is changed; we travel via thought waves - no pollution from manufacturing (replicators)
• free from all disease; everyone insured; cure for AIDS
• 95% of all infants breastfed (normal); nursing breads; surgery is obsolete - new technology
• seniors are self-sufficient and do not have to worry about increasing cost of insurance
• hospital and all medical care, free
• community design reflects needs of health lifestyles, citizens, "healthy communities" planners in government/business/etc.
• higher educational standards
• a lot of education/high-tech videos done at home
• worldwide communications at home
• education serves the community - it's relevant and recognizes differences, develops strengths - not as linear
• computers are fine tunes
• people honor other people
• electronic voice - beep that tells you if you're thinking negatively against the community
• work time reduced; more family time; expanded opportunities for volunteerism
• people will work because they do something that "turns them on" and not just to survive
• everyone has housing; basic needs are met
• all children are wanted and desired
• children have rights
• kids have right to be free of genetic defects
• everyone has a sense of humor
• "cure-all" vitamins
• you can eat as much as you want without getting fat
• everyone likes to exercise; it's fun
• all work places provide recreation, exercise and fitness facilities
• "Jetsons" method of dressing
• houses clean themselves and cook for you so you have time to philosophize - robot helps
• all ACs have pure air
• doctors listen; people participate
• we can choose and try different physiologies - height, color, etc.
• society is intolerant of truly unhealthy conditions, political situations, etc.

TIMELINE: 2020 to 1990
FREE COMPREHENSIVE HEALTH SYSTEM FOR ALL

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2018: Health System Task Force Revises Plan: "comprehensive" definition includes prevention.
2015: Hawaii Legislature matches federal funding and begins to rebuild the system; government/private partnership: professional volunteers create health care corps which works with business.
2014: President Appropriates $100 Billion for Health Care: Hawaii Gets $1 Billion.
2005: Health Care System Collapses.
2000: Global Depression.
1997: New TB Strain Hits Hawaii -- Spreads Worldwide!
1995: Health insurers discount "healthy life"-ers; free health care mandated for pregnant teens.

EQUITABLE DISTRIBUTION OF RESOURCES
2017: Basic rights include meeting basic needs for all Hawaii's people.
2015: Cooperative Alliances: neighborhoods share in home/food production.
2010: Task force develops criteria for basic needs; suggests new socio-economic system.
2008: No more currency exchange: all funds/money handling via electronic credit transfers.
2005: Capitalism collapses.
2002: Thousands homeless.
2000: Global depression.
1997: European Common Market occurs; $$ becomes "internationalized," international free markets established.

TECHNOLOGY FREES US TO BE MORE IN TOUCH WITH HUMANITY: THE VALUE OF ALL LIFE, THE QUALITY OF LIFE.
2018: We're more well-rounded.
2015: People are more creative with their extra time: more arts, more philosophy, more innovation.
2010: People play together more.
2005: "Smart houses" affordable.
2002: Work time is flexible; employer provides child care with parental/employee involvement, and fitness centers.
2000: Education is revamped: result is individualized, optimal, nurturing environment.
1998: "Smart houses" created.
1995: High technology brings people together: matches them in skill/need areas.
1991: Economic crisis due to lack of skilled employee availability: Labor is imported.
HEALING/PLEASURE BEAM IN WIDESPREAD USE
2015: Beams Now Available to Public: HOT!
2010: Hospitals Get Beam
2005: FDA Approves Beam for Human Use
2000: Government Announces Results of Prison Research w/ Healing Beams:
      90% Rehabilitation! Prisons Become Research Facilities.

Bronze Group

OVERALL CONCEPTS AND GOALS
The Bronze Team envisions Hawaii, a Health State which values and empowers
individuals and communities who, having personal and collective control
and responsibility, create an environment free of disease, pollution,
substance abuse, violence, poverty, prejudice and bias, and free of
dysfunctional families and communities.

Technological:
• pharmaceutical advances;
• disease-free;
• more machines;
• instant;
• pollution-free.

Psycho-Social:
• self-esteem;
• equality (of power & wealth);
• violence-free;
• caring individuals, families, communities;
• education.

Lifestyle:
• more free time;
• exercise;
• leisure;
• healthy foods;
• tobacco & drug free.

Characteristics:
• perfect replication /replacement of body parts;
• meaningful relationships for families and communities by new ways of
  managing time.
HEALTHY HAWAII 2020: Details

- sleep & exercise optional (but not sex);
- pharmaceuticals designed to create permanent behavioral changes without side effects;
- air bubble transport;
- relocation of "truly bad" people to another planet for rehabilitation;
- 90% of work done at home;
- pharmaceuticals that erase prejudice and bias;
- pill in place of food: free of salt and fat;
- advances in medical science: cures for cancer, diabetes, AIDS, etc.;
- funds for social security still available;
- no disease;
- new medical technologies, and new medications;
- violence-free state;
- treadmill/exercise bike in the air bubble;
- instant-GROWING food;
- fast food places with nutritious and GOOD foods;
- Hawaii's economy self-sufficient;
- all people earn enough income to maintain their preferred lifestyle (minimum welfare);
- 4-day work week;
- shower; exercise break mid-day;
- pill that dissolves all excess calorie intake;
- clothes: put picture in machine, and that item will pop back out in the right size, color, etc. (no laundry);
- tobacco and drug free Hawaii;
- blink/beam to work;
- families intact;
- all people have good self-esteem;
- all workplaces with 10 or more people have showers;
- disease-free;
- no poverty, no hunger;
- access for all to health care & human services without cost;
- open communication;
- people will be caring and will be cared for;
- people will be understood and will understand each other;
- waste will be reclaimed and recycled;
- pollution-free;
- environment restored to pre-Captain Cook quality & diversity;
- illiteracy unheard of;
- higher educational standards;
- "cat-type scanner" that not only diagnoses, but also erases diseases and abnormalities;
- 3-day work weeks: save electricity, gas, etc.;
• communal-style system of self-sufficiency (common good, needs taken care of, etc.);
• distribution of power, wealth, etc.;
• education system: teachers from mainstream of society teaching values, practical life skills;
• perfect replication of organs: change body parts; no aging;
• complete body scanner/cleanser for imperfections/imbalance;
• instant clothes maker;
• balanced breakfast choices: food or pill;
• work at home: beam or bubble to work 3-4 days/week;
• work redefined;
• new forms of learning;
• more "people time"
• personal, family, relationships -- through new ways of managing time;
• more meaningful relationships as more time devoted to enhancing personal relationships;
• leisure/off-work activities: daily family time (e.g., planet picnics); art, music; travel -- actual or multisensory holographic -- with instant transport possible;
• home responsibilities: computerized shopping; robots to cook, wash dishes, wash laundry, etc.;
• education that includes values and life skills.

TIMELINE: 2020 TO 1990
2050: Planet picnics for families and communities.
2020: Communities are self-sufficient, enjoying meaningful relationships within families and between families and individuals throughout the wider community.
Sears sidewalk sale on body parts:
"Bargain Basement Special on Recycled Body Parts"
"Choose Your Own Brain Power: 140IQ @ $500; 115IQ @ $250; 75IQ @ $5"
2015: Synthetic body parts mass-produced.
"Gallup Poll Shows 0% Prejudice"
Computerized shopping (marketing, clothes, etc.)
2010: Synthetic body parts approved by FDA
2005: NIH/Cover Girl fund replication research; Calendar re-organized;
2000: Universal synthetic blood developed;
Transplants/implants accepted by all recipients;
Work redefined (home/other);
Work week shortened;
Families adopt homeless;
1995: Painless, bloodless surgery;
In-vitro growth of body parts;
Instant transport;
Large landholders donate land to needy;
Society recognizes and rewards activities which promote family and community values;

1992: DNA replication/genetic code broken;
Values taught in all homes & schools without bias or prejudice;

1991: Anti-tissue rejection perfected;
1990: Community groups form or are reinstated;
Reorganize financial structure;
1989: Disaster! "Tidal Wave Wipes Out Waikiki!"

Green Group

OVERALL GOALS
Lifestyles: Healthy lifestyles are passed on by example in a pollution-free environment in a home setting of choice.
Social/Cultural: No stigmas, no fears; no barriers to communications; no barriers to transportation; no boredom.
Work: We do what we want, when we want, where we want, and how we want, AND we are fulfilled and productive.
Education: Accessible, productive, individualized for everyone.
Health Care Services: It's free, accessible, and WE DON'T NEED IT.
Nutrition: Food is easy to get. It's free, readily available, nutritious, delicious, & locally produced.

HEALTHY HAWAII 2020: Details
• smart health card, redeemable for more good stuff;
• education really prepares people to be productive and happy;
• health insurance available without deductions;
• a cooperative effort of human services to provide community education classes (DOE, DOH);
• family elders live and pass on "healthy" lifestyle practices to children in an environment conducive to these practices, and when there is a need for more expertise than that available within the family, it is easily and readily ACCESSIBLE TO ALL;
• holographic telemedicine available in different languages with home TV sets;
• pollution-free environment (including noise, litter, etc.);
• no cars, with a terrific mass transit/transportation system;
• birth control with no side effects;
• nutritious, organic, delicious foods;
• everyone has a job that really utilizes their skills;
• medicine for AIDS;
• cure for age;
• grocery shopping by computer from home;
• health care is geographically, culturally, economically accessible to ALL in Hawaii;
• no charge for food, rent, medical services, education, entertainment, telephones;
• work is 99% creative from preferred site;
• clothing and transportation are optional;
• work defined by accomplishment rather than hours, and hours are flexible for everyone;
• Hawaii is self-reliant for all foods;
• stigma of mental illness is removed;
• better and faster communication between islands
• tunnels and bridges between islands;
• no hungry people, and no people without homes;
• children grow up without the stigma of being poor;
• all children are born healthy;
• people don’t have to be afraid of other people;
• drugless society;
• "smart card" -- no personnel departments: universal personnel file accessible via card, or hand/face print;
• schools: kids are assessed for skills, and tracked;
• work: computers match skills with needs;
• government: "robo-government"
• new; everyone has a say: yea/nay/abstain;
• communication: 3-D holography -- select an image.

A DAY IN THE LIFE OF HAWAII: 12-6-20
Wakeup whenever. Press keyboard for food; it comes...
Press keyboard for what job/work needs to be done: DELEGATE.
Robot-bed for kids.
Press button to clean house.
Go to Maui: stand up, walk to tunnel, and walk to Maui on the people-mover with friends.
Enjoy art and dance: Dancestation (#1); Artstation (#2).
Eat? Say hi to Terry on the moving grass with fruit trees.
Later......we windsurf.
Go home; picked up by sailboat (enjoy non-alcoholic margaritas....).
Amy has a headache; press button for "robomassage" shower.
OR, press in symptoms; records come up; interactive, accurate diagnosis.
Amy looks at treatment plans and selects an option.
Iris will prune some fruit trees or do some yardwork and landscaping in her own home yard; Laurel will do some pastel painting in her yard.

Watch 3-D news.
East with family; pushbutton meal preparation (Thai tonight).
Computer terminal watches.

TIMELINE: 2020 to 1990
2020: We work where we want, when we want, how we want.
2019: DOH open 24 hours/day, 7 days/week, 365 days/year.
2015: Computerized job bulletin board for staff (job sharing).
2010: State now offers flex time with benefits: UKU-PAU.
2002: DOH goes to fee-for-service, sliding scale (more $$$), $$ saved for highways goes to DOH.
2001: HMSA/Kaiser/DOH (Private/Public partnership) share $$ for provision of health systems.
2000: Increased lung/respiratory disease & cancer among residents; pollution scares away Japanese tourists, and yen; Working parents work near home or at home; Cars go away;
1997: Mobile clinics: "Health comes to you!"
1995: DOH launches satellite offices: lessens traffic; improves efficiency of service delivery;
1994: Gridlock: parking disappears, therefore UKU-PAU offered as an option, lessening traffic; no roads? -- state bikepaths;
1993: DOH buys computers for all departments (state has more $$$ to give);
1992: State offers free tuition/work trade program, cooperative training;
1991: State raises taxes on foreign companies (more money for the State).

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2020: Food is free, delicious, nutritious, locally produced and easily accessed;
2019: Community centralized food distribution centers established with ethnic diversification; pre-prepped food and produce distributed;
2017: Community Coop farming initiated;
2016: School-based farming feeds school kids;
2011: School day lengthened to include basic survival skills, i.e., agriculture, etc.;
2010: State subsidizes supermarkets and fastfood restaurants to establish distribution centers;
2005: DOH subsidizes healthy food choices through smart health card; FDA discovers accurate, fast method of toxicology testing all food components;
2000: Maui becomes agricultural heart of Hawaii;  
Homesteading popular again;  
Kahoolawe cleaned up and farming begun there;  
1998: Desalination by solar energy;  
1995: We are all pseudo-vegetarians: no meat available;  
1994: Military bases closed: land reverts to State;  
1993: Discovery: Water is not boring;  
Surtaxes based on fat content of food: Project LEAN initiative;  
Surtaxes established on alcohol, cigarettes, and junk food;  
Ecology gardens established;  
1992: Loaf of bread costs $20; rice costs $20/lb.;  
1991: Shipping costs increase by 300%.

Pink Group

OVERALL CONCEPTS  
ideal community with excellent health and happiness  
basic needs are fulfilled (housing and education, health care and food, money, safety) safe place to raise children and grow old in extended family/community  
close kinship - community spirit  
worldwide peace, love  
decentralized medicare and government

GENERAL GOALS  
• no poverty/hunger  
• longer lifespan  
• more knowledge (better care)  
• closer kinship (community spirit)  
• knowledge of certain diseases  
• no more traffic  
• no garbage  
• more education  
• easy access to health care  
• free health care  
• self sufficiency in food production and energy  
• free college education  
• no stress  
• more low-cost housing  
• water fluoridation  
• safe walking at midnight
• 90% reduction in alcohol consumption and drug use
• no more crime
• children to take care of us when we get old
• miracle pill to take care of weight problems
• drugs to dissolve arteriosclerotic plaque
• workers run businesses (no one needs to work more than one job)
• 3-day work week (6hrs/day)
• time to dance
• state government rotates to each island
• free child/adult care
• no taxes
• lots of leisure time
• no need for a health department
• no need for an army
• worldwide peace
• more love
• no more toxic waste
• no drugs

HEALTHY HAWAII 2020: Details
Communications Systems:
  telepathic
  good networking, complimentary services
  computers linked to home/work

Transportation Systems:
  mass transit - subway, hydrofoil
  non-polluting - solar mopeds (one lane reserved for mopeds)
  more buses, less autos
  more parking
  better roads
  flex time

Governance:
  abolish city, county, federal and create one central government; no
  competition
  central distribution of services, budget, personnel
  rotation of central government to neighbor islands every 2 year
  good inter-relationship of governmental bodies

Economy:
  to each according to ability and needs
  no use of plastic (un-biodegradable goods/toxic materials)
redistribution of power/authority
basic staples supplied to everyone
housing available to all within means

Religion:
  no religious wars
  ecumenical groups
  religion to help with healthcare of people

Education/Learning:
  accessible to all
  time-off from work for school
  texts available

Miscellaneous Details:
  2020: redistribution of power
  worldwide community
  stable economy
  catastrophe - Waikiki underwater; tourism destroyed; result in poor economy
  alien invasion
  warning of increased number of nuclear satellites and explosions
  neighbor helping neighbor - band together in crisis
  government going bankrupt
  decentralization of authority
  barter system
  limit politicians to one term, no salary
  people living in spacestations ($20,000/unit) in Hawaii
  people living in spacestations, price decreases to $10,000/unit

TIME LINE: 2020 TO 1990
2015: people (community spirit) - helping each other
  housing with multiple healthcare facilities and personnel
  extended family - very little money
2010: computer linkage - healthcare info
  job connections - home to worksites
  housing with medical services facilities/personnel (MD, RN, SW, core services)
  health education for seniors to stay healthy - use seniors as teachers
  no taxes if volunteer services given to community
  health education through training of extended family - caregivers of child/adult care
  in-home or at nurseries; projects (i.e., environmental clean-up)
use senior/disabled for support/health education/etc.; otherwise, no welfare

2005: change in technological focus - not making weapons; research in positive development for world society

- technology breakthrough for food production, energy, waste management (recycle waste), oceanography, aquaculture
- building housing cheaply
- space visiting
- water recedes - housing accessible and land available on golf courses
- cure for AIDS
- preventative medicine supported by society - increase in health education
- national health insurance

2000: decreased number of rich people - 1/2 of population dies

- space explosion - visitation by space beings informing us that we are prohibited from having or building more weapon systems
- decentralized government - linkage through networks
- communities pull together to deal with environmental and economic problems through tax incentives
- barter system becomes successful - computerized - increase in production
- MDs and public health employees decide to start local community clinics and home care to handle health problems
- increased resources due to a decrease in population (deaths from AIDS)
- politicians limited to one term

1995: increase in unemployment; crime; homeless, AIDS

- decreased number of rich people
- real estate value
- barter system in effect

1992: Waikiki going underwater, slowly

1990: government going bankrupt - paying for middle east war; too many welfare projects

Orange Group

OVERALL CONCEPTS

Environment
Workplace
Community
Health Systems
GENERAL GOALS
Environment: clean, safe and beautiful air, water, and land

Workplace: clean, convenient, stressfree, safe, beautiful, non-polluting industries, with fitness opportunities in the workplace during work hours

Community: clean, safe, beautiful, crime free, not lacking for basic necessities (food, shelter, education, health care, productive work), racially harmonious

Health Systems: clean, safe, beautiful, painless, accessible, biodegradable, disease-free, electronic self-help

HEALTHY HAWAII 2020: Details
• "Clean, Safe, Beautiful" good smelling air
• clean air (no VOG)
• clean and good tasting water
• electronic self-help health system
• vermin- and roach-free (eliminate disease-carrying "creatures")
• warm/caring society
• fresh, nutritious, variety of foods (no junk foods)
• eat anything, not get fat
• choice of walking to work or selecting mass transit (no cars)
• stress release activities at work (exercise, shorter work hours, more breaks, reduced paperwork)
• community for senior citizens
• employer sponsored child care
• education - no more than 10 students per class; no aides, only teachers' life skills as part of curriculum; higher education available to all; full participation by all children
• no crime; no prisons (conflicts resolved by the community)
• no racial tension
• no trash
• safe products and recreation areas (all bikes are 3-wheelers)
• no HOMELESS
• consumer centered health care system
• non-polluting industries
• no longer a need for health services
• all babies born healthy
• totally smoke-free environment
• no pain
• robots do menial work/tedious tasks
• permission - policies/regulations/laws
• facilities - provide/build; new buildings (friendly)
• equipment- purchase
• studies/planning/time tables
• committees
• electronic bulletin board
• decrease volume of paper
• electronic self-help system for household
• access to social/health services through biodegradable "credit card"
• all residents within walking distances to work, walk
• state government decentralized
• truly "equal" education
• population control

GENERAL TIMELINE: 2020 TO 1990
2020: clean mass transit system statewide
   only non-profit industries allowed in Hawaii
   classroom size reduced to 10:1
   electronic self-help system in all homes
   universal socialized medicine in operation
2015: cable companies initiate subsidized electronic self-help system
2010: "operation clean-sweep" provides robot in every office
2007: major corporations and government develop electronic self-help system
2002: no vending machines on school campuses
2000: needles become obsolete
   American female scientist finds cure for cancer and AIDS
   oil hits $80/barrel - alternative energy becomes practical
   school curriculum requires community service projects
   Governor declares 20-hour work week for state employees - private
      enterprise to follow lead
   DOE gets 100% of budget request
1998: employers mandated to provide/subsidize child care for all employees
1997: tax exemption for all education beyond high school
1995: legislature appropriates $ for complete renovation of state facilities
   preventative health system covered by affordable health insurance plans
   year-round schools
   air pollution standards tightened
   rain forests protected by law
   final approval of architecture plans for new/remodeled public buildings -
      must pass employee review
   life skills curriculum mandate - K through 12
   single access to all state services - DOH to spearhead
   DOE ups minimum qualifications for teachers
1994: rich, foreign investor endows development of self-help system
1993: legislature includes exercise facilities for all public buildings
seniors to teach lifeskills to students
computer at every work station
mandatory daily PE/school-site wellness
childcare expenses tax exempt
1992: school lunches to have no more than 20% calories from fat
last known smoker quits
1991: state employees band together to design own workplace

CONSUMER CENTERED HEALTH CARE SYSTEM
2020: electronic self-help
2015: cable companies initiate subsidized system
2007: major corporations and government develop electronic self-help system
1995: single access to all state services - DOH spearheads
1995: preventative health services covered by affordable insurance

2020: socialized medicine universal
2000: needles become obsolete American female scientist finds cure for cancer
and vaccine for HIV infection
1994: rich, foreign investor endows development of self-help system

STRESS HEADLINES
2010: operation clean-sweep provides a robot in every office
2000: Governor declares 20-hour work-week for state employees - private
enterprise to follow lead "20 X 20"
1998: final review of architecture plans
1995: employer mandated to provide/subsidize childcare for all employees
1995: Legislature appropriates $ for complete renovation of state facilities
1993: plans must pass employee review
1993: childcare expense tax-exempt
1993: computer in every workstation
1993: legislature includes exercise facilities for all public buildings
1991: state employees band together to design own workplace

AIR
2020: clean mass transit system, statewide
only non-polluting industries allowed in State
2000: oil hits $80/barrel - alternate energy becomes practical
1995: Air pollution standards tightened
1995: rainforests protected by law
1992: "last smoker quits"
EDUCATION
2020: classroom size reduced to 10:1
2002: no vending machines on campus
2000: DOE gets 100% of budget requests
2000: school curriculum requires community service projects
1997: tax exemption for all education beyond high school
1995: DOE increases minimum qualifications for all teachers
1995: year-round school
1995: life skills curriculum mandated in grades K-12
1993: seniors to teach life skills to students
1993: mandatory daily P.E./school-site wellness
1992: school lunch to have no more than 20% calories from fat

Red Group

OVERALL CONCEPTS
look at the communities' basic needs in order to have healthy people and communities
basic needs: affordable homes
free medical care
education
free child care
assistance by private sector to a healthier community
early prevention programs
family values
emphasis on primary prevention rather than tertiary prevention

GENERAL GOALS
• free of hunger and disease
• education (everybody literate)
• free medical
• remove all items harmful to our health
• no need for hospitals
• being #1 in terms of health status
• no more homeless
• better access to and delivery of health care
• better quality of preventative health care
• start preventative health care in schools at an early age
• no more distorted families (better family life)
• total freedom from any substance abuse
• more money for your worth
• private sector reinforcing health lifestyles
• no budget limit
• employers (i.e., DOH) reward employees for healthy lifestyles
• health insurance rewards healthy people
• third party reimbursed education
• no cars
• free child care
• daycare centers in workplaces
• lottery for health
• affordable homes
• flexible working hours

HEALTHY HAWAII 2020: Details
8:00 am: wake up
  everybody ready for breakfast in the backyard
  fruits available all over backyard
9:00 am: get ready for work
  jog, walk, or ride a bike
  childcare at worksite
  everything within walking distance
  around-the-clock "A+" programs
10:00 am: at work
  coping with stress
  rewards for creativity
11:00 am: massage chairs
  automatic focusing office equipment
  less paperwork recording correspondence
  more time for direct services
  telephones - able to see who you are talking with on-screen machine to
  handle difficult situation
NOON: lunch - healthy and nutritious, provided by employer
  exercise area after meals
  employer allows ample time for check-ups
1:30 pm back to work
2:30 pm: time to go home and be with the kids when they get off from school
  parenting activities
  more and more families have dinner together
  more community/family type activities
  all TV/radio commercials about healthy lifestyles
8:00 pm: push-button infant bottles
  sleeping time
TIME LINE: 2020 TO 1990

Free Child Care

2019: public and private industry partnerships - larger government help out smaller companies

2015: 85% of private industries have free child care

2010: representatives from different levels of the working class in decision-making process

2005: more women in administrative body

2000: bill introduced and passed, for state agencies first and private sector to follow

1997: evaluation of project - shows more productivity, less sick leave and vacation leave

1996: DOE puts aside funds for demonstration project

1995: female governor in office - some groups approach governor

1990: petition by employees for free child care

Affordable Housing

2019: private industries allow opportunities for profit sharing, borrowing money at low interest rates

2010: changing requirements regarding down payments lower interest rates

2005: more government-funded housing projects

2001: cuts in federal spending on defense and foreign aide

2000: peace agreements among nations

1995: private industries to sell part of their land

1992: legislation to limit foreign investments

1990: more pay to parallel rising cost of living

Free Medical Care for Everybody

2019: rich people (upper bracket) to pay more taxes

2015: Center for Disease Control say reduction of chronic diseases

2010: prevention programs funded by federal government

2005: cuts in defense spending and foreign aid; federal budget shifts to health programs

2002: peace agreements among nations

2000: Hawaii is closest in meeting the year 2000 objectives

1993: state legislature supports prevention programs

1992: evaluation of SHIP - national recognition for SHIP program

1990: SHIP implemented

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Yellow Group

OVERALL CONCEPTS
disease-free society/community - focus on prevention
health care/education accessible to all
provide a system of support/structure/security/time to families
technological advances would free us for positive pursuits
time - more efficient/flexible use of time - re: work, recreation, parenting,
gardening, education, total lifestyle
housing for all - planned/organized housing (below ground/modular units) to
free up lands
pollution-free and lush environment
crime-free society

GENERAL GOALS
• mass transit - no cars/traffic
• pollution-free environment
• TV shopping
• no ethnic diseases
• no commuting - worksites in community/home
• maternity leave for 1 year for moms/dads - no reduction in pay or benefits
• drug-free society
• eradication of AIDS
• mandatory education through high school
• equal health care accessibility
• no famine
• housing for all - no homeless
• crime-free society
• no chronic disease/no infections
• homes programmed for healthy foods - push buttons
• hydroponic gardening - no pesticides
• citizens of Hawaii get COLA to live in home state
• recycling/composting - way of life
• flexible worksites - job sharing
• use of wetlands to process primary treated sewage
• no teen pregnancies
• improved parenting skills
• time for parents to practice parenting skills
• no war
• laser surgery (technology) - no hospital stays - decrease in healing time
• positive work environments - attractive, efficient
• robots to clean house/serve
• green open areas for children/recreation purposes
• facilities - adequate/available for day care
• men to have the babies
• massage therapy in every work environment
• biodegradable products
• personal tutorials for children - TV monitors
• family therapy services available to all
• respect for life and land
• decentralized health care
• clean living environment - food, air, water
• health education - healthy lifestyles
• employee incentives at work site
• health insurance for all
• advanced medical technology (causes/treatment)
• to fund medical research/health care, decrease military budget (given global peace) and increase research/health care budget
• portion of taxes to fund health care incentives to those who practice prevention
• immunization for bacterial/viral infections - everyone immunized
• genetic engineering - to get rid of chronic diseases
• behavior change - media control for responsible, healthy lifestyles
• change in norms/attitudes

HEALTHY HAWAII 2020: Details
wake up according to individual body schedule
bed automatically fixed
shower: auto-sensor turns water on/off
delicious, nutritional, non-fat/low-cal breakfasts (e.g., waffles, pancakes, etc.) - push button for choice
quality time with family
work - either at home for some (lots of activity); mass transit for others (no traffic)
kids - educational environment (e.g., home, community, school, etc.) - low ratio students:educator
recreation/low-cal food breaks when wanted, in a clean environment
work environment - stimulating, adequately equipped, ergonomic, safe, non-toxic environment
work amenities: no sick leave, so 2 months vacation/year
1-year parental leave child care available on site
recreation facilities at worksite (gym, pool, sauna, massage therapy, beauty salon, psychologist)
geriatric leave - to take care of aging parents, etc.
wonderful company cafeteria - low-cal
after work - choose own work hours - go home on mass transit - leisure activities:
  shopping on TV at home
  fishing, swimming
  socializing, ocean spas
  ocean recreation, time with families
  home recreational/educational centers
  dinner- push button, low-cal, yummy
  entertainment - beamed to us from all over the world; socializing;
  smell-a-vision TV

TIME LINES: 2020 TO 1990
No Chronic/Infectious Diseases
2020: Hawaii - first state to eliminate all chronic and infectious diseases
2010: advanced medical technology developed for cures of chronic and infectious diseases
2005: scientists discover human genes that cause different chronic and infectious diseases
2000: Hawaii recipient of UN funds for chronic and infectious diseases eradication
1997: self monitoring link to telecommunication systems to monitor health status
1995: Hawaii citizens adopt DOH health lifestyle model to control/reduce chronic and infectious diseases
1994: international traditional medicine conference convenes in Hawaii holistic health practitioners confirm mind control for self healing abilities
1992: all public/private sectors provide total environments and support for healthy lifestyle practices

Housing
2020: modular, efficient community completed to house last homeless family changes in family structure to reflect community ties
2010: housing/building regulations and zoning changed and expanded
2005: space and materials for housing - designed and developed (pre-fab units)
2000: statewide plan for housing for all citizens focusing on family structure to strengthen community ties
military $ shifted to fund housing development
1995: state/federal governments provide funds for modular home research and planning
1992: US cutbacks in military funding; makes Schofield Barracks available for homeless shelter
1991: homeless plight recognized by government; homeless unite and fight for rights

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HAWAII TEEN PREGNANCY AND PARENTING COUNCIL

Suggested Vision Statement

This council exists to build a future:

- in which women initiate pregnancy only by conscious choice, and receive social support for a wide range of options with regard to child-beari
- in which children are highly valued members of the wider community as well as their own families;
- in which quality childcare is universally accessible;
- in which parenting is given respect and emphasis as both a skill and an art;
- and in which an accessible, high-quality, lifelong educational system balances family/life education with academic studies.

The council further recognizes that in order to achieve these social goals, people must work together in a spirit of cooperation, of loyalty to each other and to humanity, of tolerance and joy in diversity, of self-respect and empowerment, to create a healthy society which:

- offers everyone access to quality health-care and social services, which respect human dignity, attach no stigma to the need for help, and grant clients authority over their own needs;
- attaches neither cultural nor political stigma to sexuality; separates issues of conception from issues of sexuality; and considers sex a gift of loving pleasure from one adult to another, and NOT a tool or symbol for power, economics, or control;
- and guarantees its children the right to a full and challenging childhood safe from want, exploitation, harm, and early parenthood.

The council further wishes to affirm its desire to build this future in such a way that its members may embody the very goals they work towards: cooperation, loyalty, tolerance, joy in diversity, and respect for self and others.
**CHILDREN**
Children raised at home and safe in the larger community: more sense of belonging
Children highly valued
Computer-aided genetic engineering to improve quality of life/health, decrease number of birth defects
More career exploration of children’s potential

**PREGNANCY**
Pregnancy only by the conscious choice of the woman
Kids always know who parents are
Widely available contraception
Sperm banks increase
Social problems leading to early pregnancy fade away
(Teen pregnancies will occur due to method failures, accidents, etc....)
Pregnant teens will not have to change lives & hide: they will have the support of their community

**NEXT STEPS:**
identify groups at high risk for teen pregnancy (can do at Kaiser)
Lobby HMA and professional relations departments at insurance companies and hospitals to acknowledge and pay midwives
Educate community re: midwifery as service and potential profession

**SEXUALITY**
Sex more fun
No cultural/political stigma attached to sexuality
Sex = adult pleasure (also age-appropriate sexual expression of non-adults):
   NOT power, economics, or control through sex

**NEXT STEPS:**
Expand/update school health/sex education curriculum (Doug)
Establish Saturday AM sex education programs

**HEALTH CARE**
Beginning from the first day in the schools, education teaches students how to make healthy choices; this continues all the way through schooling and includes non-traditional education sites like worksite classes
Government makes children’s/teen’s health a priority
Quality health care available for all children/for all families/for all people
Completely socialized medicine
No categorization of people seeking help
Universal national health care with equality of service
From OB-GYN care to midwifery
Service recipients empowered: clients define own needs, service providers
assist and aid, but do not direct and rule
Development of adolescent medical specialty combining pediatric, psychiatric,
and family counseling skills, as well as sports medicine and
OB/GYN/midwifery
Good health has become a leading edge industry in Hawaii: the best hotels are
health spas staffed by paraprofessionals
Healthy restaurants subsidized by employers, unions

NEXT STEPS:
Gather hard data to document need:
  health insurance
  low birth weight
  absenteeism
  maternity complications and cost
Use Council as resource pool to add quality/expertise to ongoing programs,
expand them, make them culturally appropriate (Beth, Doug, Charlene,
Lisa Ontai - 536-1045)
Increase links between/among health care service groups -- organize
themselves as vocal, militant lobbying force
Establish programs for clients to act as consultants to service providers
  (advisory board, political union or lobby, etc.) (Doug)
Establish pilot project funded by major local corporation to offer -- and study --
productivity enhancing effects of work-site health/family programs (Olivia)
Establish programs to restructure physicians' values toward team approach to
  solving patients' problems -- patients as team members

GENERAL SOCIAL VALUES
Parental consent unnecessary (w/ sexuality/reproductive decisions/access to
  services)
No stigma attached to ANY human problem
100% employment
Joy in various cultures and their activities, traditions
No class distinctions by job: esteem attached to all jobs
Widespread voluntary community service: kids earn coupons; adults earn tax
  credits
Social democratic society: egalitarian, more justice, demilitarization but
  domestic peace corps of sorts (turn military paradigm upside down --
  army of social service workers)
Raping of environment ends; people live in harmony with nature
People value each other more: greater loyalty; less competition; greater self-respect
Move beyond dealing with social symptoms to causes of social problems

NEXT STEPS
Write curriculum for corporate employees on self-esteem, personal relationships, family development (HEICO)
Take advantage of union stop-work meetings for education programs (Charlene, Sarah Kuzmanoff, Lisa Ontai)
High school graduation requirement: establish course in growth, development, family development
Establish health program at U.H., community colleges as part of general education requirement
Establish parental training program statewide
Put more public information spots on TV & radio (topics?) (Candice Radner)
Explore media possibilities supported by local stations: programming (Lisa, Kurt, TIP -- Jane et al.)

CHANGES IN THE COUNCIL
Still exists; incorporated with both state and national structure; continues to network resources and programs; evaluates society’s needs; presents a strong voice in legislative activities
Supports continual health education possibilities for immigrants -- also sees them as an information resource for cultural health traditions
Council transferred to state commission on teen health; its members are paid; meet in governor’s office
Statewide computer linked database accessible to all council members and public
Equal number of males and females, of adults and teens and kids represented on the Council
No hierarchy in the Council: consensus decision-making
Mainland/international database links, and conference and mailing market organization’s services

NEXT STEPS:
Establish pilot project funds: local corporations (Olivia)
Political support for ongoing programs: i.e., set up Council data base of grass roots community supporters, influential, political contacts (Doug)
Add clients to Council (Kit, Mildred, Doug, Beth)
Add Council liaison to business community
Form kuliana so Council member organizations have unified strategy in approaching business, legislature (Candice Radner -- 733-9050; Charlene, Lisa Ontai)
Council move to revitalize coalition of business with worksite program
(Charlene, Lisa Ontai)
Council monitor legislative activity more closely (computer-aided access and
sharing of upcoming bills, hearings, etc.) -- one person as observer,
linked to phone tree...
Develop grant for corporate funding to synthesize directory of worksite
programs (which would also fund Council support staff, at least in the
short term)
Consider hiring support staff for the Council (see above)
Establish Teen Council operating style (decision-making/ratification at meetings
PACIFIC COASTAL ZONE MANAGEMENT IN FIVE ALTERNATIVE FUTURES

Workshop One: Alternative Futures

Scenario One: Continued Growth 2020
By the year 2020 there will be nobody left in the retirement fund, which will have collapsed; everyone will be dead or retired.
CZM has become an extension of government as a corporation; there to ameliorate the worst impacts and to keep greenies away from developers; smaller resources left in previously protected areas as coastlines are developed for aquaculture, reefs are fished out; managers left (freshly minted, naive college graduates remain), most have become private consultants; economic growth is real ticket to personal economic success.
Small areas like Samoa become a source of cheap labor; they keep canneries going but close off Pago Harbor; fill in lagoons and set up high-tech food factories.
What little land there is becomes a playground for the rich; the canneries are moved somewhere else, i.e., onto an offshore platform.
Samoans will lease out the land for others to develop; Samoans sit back and rake in rental money; island will be managed by corporation; reserves used for economic purposes—intensive aquaculture.
Politics relevant only to bringing in money; politics an extension of corporate activities.
Federal monies have dried up; corporation exercise almost governmental powers.
CZM will become only a fairy tale with smaller and smaller area left to preserve and protect.
We promulgate lots of regulations and require dozens of permits but the bottom line is that we permit all activities.
Fresh water lens collapses, depend more on desalination.
No freshwater; use bottled water; use saltwater to flush toilets.
Have smaller coastlines anyway because of the rising sea level.
People build vertically because no flat land is left for development; there is more erosion; more debris; may fill in more wetlands and bays.
Change nomenclature: if we call the wetlands swamps then we will want to fill them in.
Assume that technology will solve the same old problems.
Western Samoans (and people from other places) will continue to immigrate to American Samoa; corporations need work force.
All considerations of equity will have been jettisoned; communal land owners will get lots of money; those left behind will be landless.
Research: biotechnology to breed/bioengineer fish which grow faster; learn life cycles of marine animals (even farm pelagic species); everything bottom line oriented; corporate funded research.

Better fertilizers; better pesticides: local government's role is to uncork bottlenecks in their use.

Corporations (e.g., hotels) bring in self contained infrastructure packages; bypass local infrastructure; form a group of corporations to run the territory.

Local government is spending its time fighting brushfires; finding ways to compromise with corporations to keep populace from becoming rebellious.

Local government becoming more sophisticated: "all impacts can be ameliorated."

Retirement has become big industry in Samoa.

Significant increase in impact fees.

Environment will be created (e.g., pristineness designed).

There will always be non-profits, corporations will subsidize them; corporations will also fund oppositions; and fund the government.

Fly end product to consumers; no infrastructure in remote areas.

Education: all done off island.

Rebuild blighted areas (result of development) a la Disney park.

**Scenario Two: Decline and Collapse**

Rapid population decrease (290,000 in Samoa); survival of fittest; isolation.

Closed agricultural society - subsistence lifestyle.

Linkage with outside cut off < fewer data resources.

Police state to provide equal access to resources.

Need to search for knowledge, economic opportunity:

- education
- transportation
- infrastructure

Planning for future (all aspects) cannot afford to wait.

Culture will be redefined

(Strengths - in Samoa - matai needs control and needs to share)

As result managers need to identify resources, understand carrying capacities.

Shift to local governments, communities manage own affairs.

**Scenario Three: Conserver Society/Green Future**

Traditional expertise used in land management/stewardship.

Lost enforcement capability since there is no longer a need for it.

Shift to councils - management by private groups.

Punishments would be stronger: resources now community’s lifeblood.

Increased inter-island cooperation - regional conservation ethic.

More community input in rules and rulemaking; regulation modified.
Communication improved: better networking.
More public buses.
Feds - gone.
Only use recyclable materials, packages, products: ban non-recyclable goods.
Learn farming from other islands.
Institutionalized restoration: bio-recreate extinct species.
Rate of species extinction = 0
Working for the common good.
Alternative fuels: solar/ocean thermal energy.
Cultural celebrations.
Live longer - 0% population growth
Every person: has a role in caring for the environment.
Less government instilled caring: cost of government goes down.
Rebellion by materialists.
Legislated rules less important.
Simpler lives; subsistence lifestyles common.
Educational component: more emphasis on understanding other cultures.
Shift in economic resources to focus on the environmentally sound.
Strawberries grown on islands.
Lifelong education/population control.
Citizen involvement in conservation areas.
Education programs rather than enforcement.
Decentralized communities.
Attitude about cars changes: bicycles now more popular.
Smaller communities have more power/influence.
Move to ocean environments.
Educators focus more on appropriate technology exchange.
People more involved in environmental management.
Eco-tourism/nature exchanges and cultural tourism are popular.
Educators/researchers rather than regulators: the CZM role is transformed.
Manage extreme national emergencies: landslides/typhoons/hurricanes, planning and forecasting (JOBS)
Better uses of fertilizers.
Local foods/medicines; island medicines become an economic resource.
More park rangers.
Global currency - electronic transfer.
Appropriate technology; environmentally sound technology and computers.
Reassess technology on islands/revive traditional values.
Change in TV's role: mass educator; good news not bad.
Schwarzenegger - Boy Scout leader.
Celebrate good things.
Crime down.
Stimulating dreamstate rather than watching TV.
No famine, disease, war.
Scenario Four: Disciplined Society
Conservative nationalists seize POWER.
What happens:
1. Non-nationals
   a. expelled
   b. become 2nd & 3rd class citizens
2. Traditional systems strengthened
   Return to FAA Samoa etc...at all island levels
3. Centralization
   a. Copra programs--nationalized
   b. Fisheries programs--nationalized
4. MONEY
   a. Banana Republic situation ("If you say the right words to USA etc.")
   b. No foreign assistance ---> tighter controls and management -->
      perhaps at subsistence and traditional levels
5. ROLES
   Advisors ---> National Program Banana Planter ---> National Banana plantation

OPPORTUNITIES
better coordination ---> central planning less political rigmarole greater temporal horizon - not election to election CZM as a method of concensus -->
could EXIST ---> more conferences

Scenario Five: High Technology Transformations
Our roles as resident managers would be very different.
Easy access to information; less travel.
Quicker dissemination of information--also more requests--CZM managers become information managers.
Change in specifications of information levels.
Instant computer transcription.
Decisions made automatically--instant long term projections of project impacts; machines making decisions
Class distinction between resource managers/public.
+ CZM expanded into low-orbital-space management (up as well as down).
+ "Coastal" term dropped--Total enviromental management; global management.

Free clear energy.
We won't be needed.
No more environmental problems--shifted to political issues. Loss of traditional culture--world culture of technology.
Homogeneous society--we'd lose our identity.
Major regional--mega-research centers. We’d all be retired. Computers will be able to think like human brains--resource managers value/rank decisions. No public hearings--instant public involvement via communications systems. Loss of human interaction. Enforcement easier - robot enforcement with laser beam stun guns.

Jobs would focus on social decisions--much of our work done by machines. Under more centralized working environment--less flexibility in decision making.

No need to preserve natural areas. "Natural" areas created. Everything recycled--less demand for natural resources. Living & working on my own luxury hi-tech yacht. More leisure time to procreate.

**Workshop Two: Planning for Climate Change**

**Group One**

Effects on Human Survivability of Sea-Level Rise

a. Fresh water b. Living space c. Source of food

### A. Fresh Water

<table>
<thead>
<tr>
<th>Effect</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water table</td>
<td>Water Management &amp; Conservation</td>
</tr>
<tr>
<td>Saline intrusion</td>
<td>Stormwater Catchment</td>
</tr>
<tr>
<td>Desertification</td>
<td>Non-impermeable surfaces</td>
</tr>
</tbody>
</table>

### B. Living Space

<table>
<thead>
<tr>
<th>Effect</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal inundation</td>
<td>Land use planning</td>
</tr>
<tr>
<td>Increased flooding</td>
<td>Coastal hazard planning</td>
</tr>
</tbody>
</table>

### C. Sources of Food

<table>
<thead>
<tr>
<th>Effect</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift in vegetation zone</td>
<td>Land use planning</td>
</tr>
<tr>
<td>Growing season change</td>
<td>Soil erosion studies</td>
</tr>
<tr>
<td>Soil change</td>
<td>Aquaculture-marliculture support</td>
</tr>
<tr>
<td>Crop disease</td>
<td>Assist with:</td>
</tr>
<tr>
<td></td>
<td>agricultural research</td>
</tr>
<tr>
<td></td>
<td>soil conservation</td>
</tr>
<tr>
<td></td>
<td>biodiversity conservation</td>
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</tbody>
</table>
**Group Two**

**LOW ISLANDS**

<table>
<thead>
<tr>
<th>Low Scenario</th>
<th>Hi Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFFECTS</td>
<td>RESPONSES</td>
</tr>
<tr>
<td>Coastal Inundation</td>
<td>Continue amendment of existing plan to develop responses to climate change</td>
</tr>
<tr>
<td>Saline Intrusion</td>
<td>Desalinate/Tow icebergs</td>
</tr>
<tr>
<td>Cyclonic Storm Frequency</td>
<td>Hard Buildings Codes, Disaster planning, post-disaster planning</td>
</tr>
</tbody>
</table>

**HIGH ISLANDS**

<table>
<thead>
<tr>
<th>Low Scenario</th>
<th>Hi Scenario</th>
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</thead>
<tbody>
<tr>
<td>EFFECTS</td>
<td>RESPONSES</td>
</tr>
<tr>
<td>Episodic Flood</td>
<td>CZM: Identify zones; tighten permitting</td>
</tr>
<tr>
<td>Government: Infrastructure development/protection</td>
<td></td>
</tr>
<tr>
<td>Saline Intrusion</td>
<td>CZM: Protect existing resource (with EPA)</td>
</tr>
<tr>
<td>Government: Develop &amp; promote catchment</td>
<td></td>
</tr>
</tbody>
</table>

**Group Three**

We decided to plan for the high islands scenario since effects are similar, but at different levels of magnitude.

**EFFECTS**

Loss of Land
- Coastal inundation
- Coastal erosion

Loss of Water
- Flooding
- Compression
Low Rise Impacts
1. impacts on reef:
   salinity, temperature
2. erosion
High Rise Impacts
1. inundation
2. potable water
3. changes in storm frequency

RESPONSES
Government
Pressure on national government
Research:
   a. resources
   b. sea level rise - island specific
   c. impacts of (b) on (a)
   d. response to (c)
Public information and education
Policy development
Program
Comprehensive plans based on worst case
Public education
Enforcement

VISION/GOALS
(AMERICAN SAMOA)
-->$ for acquiring fragile areas
-->balance between sustainable development & environmental protection
   independent of political pressure
   decisions on sound information not politics
   unlimited funding
   fully staffed with researchers
   engineers & managers
   multi-disciplinary teams (more focused) with regulatory teeth
   provide future teams scenarios from others
   user-fee driven mechanism
   assessments before any action
   address human needs & economy as well as environment
   community/public participation to develop shared vision
   integration of traditional cultural systems (in recognition of community roles)
   greater priority to resource management
   greater community sharing of ideas at regional & national (including economic assessment & valuations)
   effective communication & integration between agency & public

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independent of government (free of politics)
unlimited funding -- user fee driven
staffed with all needed disciplines (social, economics, technical, administrative, etc.)
unlimited data availability - resource inventory
public hearings for planning & involvement - public participation
integration of cultural/traditional resource management
sharing ideas at regional/national levels (dreams, frustrations)
education/communication
establish conservation areas
sustainable development/environmental protection/resource management/traditional resource management (stewardship)
regulatory teeth <--- > decentralized
coordination on futures agenda setting with other agencies
environmental account in GNP ---> National Development Plans (priorities)

CZM FUTURE(S)
1. Independent of political interference
2. Staffed with needed personnel
   technical
   administrative
   social/economic
3. Unlimited access to data/information
4. Unlimited funding
   user fee mechanisms
   trust accounts (fines)
5. Major goal - sustainability
   National Development Plans
   Env. Accts. in GNP/measures
6. Education/communication/exchange
7. Stewardship <----- > regulatory
8. Focus on priorities/responsibilities

VISION/GOALS
(COMMONWEALTH/NORTHERN MARIANAS ISLANDS)
Diversify funding sources
Create an independent organization not headed by a political person;
independent non-profit organization
Pay for relevant research from other jurisdictions
Initiate an aggressive public education program (including use of TV)
Promote public awareness & community through community, church
Enhanced use of high tech in date/computerized data assimilation
Integration of population into decisions
Economists and planners talk
Environmental activities (cleanups)
Maximum use of local expertise
Streamline the process
   permit reviews within 2 weeks
   CZM satellite offices in every village (incorporate locals)
   better accountability & follow-through:
      e.g. base the responsible persons salary on level of permit
   legal counsels on a performance basis
   yearly work-plan reviewed
   an NGO assistance program to enhance monitoring
A program designed to secure a balance between sustainable development and environmental protection: resource use, economic development and environmental protection
Adequate ('unlimited') access to multi-disciplinary resources ($ and people) and data/information
   coordination among players
Decisions based on information not politics
Greater regulatory teeth - can be divested to local communities (decentralized)
Greater integration of traditional cultural goals, resource uses, etc.
Enhanced public participation and education
Enhanced ability to influence national plans to reflect local needs
$ to protect fragile resources; budget based more on user fees
Offices on the beach
No net loss of important coastal resources; sustainable resource base
***Well educated population/legislature
***Different level of governmental/NGO integration of program development
Cooperative system for implementation
*CZM promoted & upgraded -- more authority
*Control over wetlands & drylands
More interagency cooperation; more tools -- GIS
***Comprehensive master plan for overview
Monetary compensation by developers for objectives
****More funds for program & participants
Commission to overlook CZM
Identify high risk areas first--->Program skewed to the environment
Permits are reasonable and rules consistent
**Play by rules/enforcement strengthened
More time and priority for planning
******Involve public more - interested and convinced public educated
Detail in planning for predictability based upon data base-complete
*Enforcement across board - well informed decisions broad based with all information
VISION/GOALS
(GUAM)
Public/Private school education
Media & public information outreach
Management versus regulation
Environmental issues to be addressed
User $$$ (pays)
 Mitigation of impacts
Politicals be greenies!!
Youth as resource managers
The wet side of CZM = ocean
No global climate change
No restoration necessary
Cross link with other agencies
Protected from politics
Link between research & management
Adequate funding; only local funding
Qualified & trained staff
Total public (government/legislature) input, acceptance and support
High tech toys (to include communication)
International & regional ties
Multi-disciplinary approach
Better ties to local government
Conservation incentives
Research useability

VISION/GOALS
(HAWAII)
* 1. Commitment - legislative implementation and codification
* 2. cooperative enforcement by various agencies
  3. Wants informal legislature and community
Regulations followed by an informed public
Legislature support through voting records
Marketing information - Dollars donated by developers
Governor supports with direction & approval -- signs off on recommendations
Licensed environmental consultants
$$ legislation to allow revenues generated by developers to go into program
Classroom visits for education
Observe trends in land use
  number of maps, information data base availability
VISION
Well educated population/legislature
Involvement and integration of public and government
Comprehensive master plan
Well funded program/$$
A public that plays by the rules
Consistent and fair enforcement across the board -- well informed decisions
Program skewed to the environment

GOALS
Legislation, federal and local which strengthens CZM programs
Codification -- regulations in place to strengthen enforcement
Master plan components date base -- geographically specific inventory of resources to be protected
Education for planners, well informed, licensed environmental assessment officers
Government support shown by support and implementation of recommendation
Voting records supportive and $$$ from permitting and licensing

METHODS/MEASURABLE GOALS
(AMERICAN SAMOA)
TRAINING & CERTIFICATION PROGRAM
For: Planners
    Environmental consultants
    Enforcement officers

2 Levels of certification
1. Within profession/peers - sanction/black list
2. By state or territory or commonwealth
   amend existing/create (*** legislation: include quality control
3. Be nationally sanctioned; reciprocity agreements

Process
Establish proficiency
application process:
1. List requirements
2. Prequalify
3. Quality control check/test
4. Courses established
5. Training program: general/special
   a. on island (SPREP)
      roving trainers Pacific satellite/computer
b. off island
   help train in-house upon return  
c. on the job training
   apprenticeships  
6. grandfather in old employees

Enforcement:
   include community relations/marshall type of training to other curriculum  

7. Continuing education --> towards specialization

<table>
<thead>
<tr>
<th>RESOURCE ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE I</td>
</tr>
<tr>
<td>Brief governor</td>
</tr>
<tr>
<td>Establish task force</td>
</tr>
<tr>
<td>Establish working groups</td>
</tr>
<tr>
<td>Organize/Implement village meetings</td>
</tr>
<tr>
<td>Develop strategic PR plan</td>
</tr>
<tr>
<td>Issue RFP for synthesis documents</td>
</tr>
<tr>
<td>Draft report</td>
</tr>
<tr>
<td>Follow up public review</td>
</tr>
<tr>
<td>Samoa 2000 report</td>
</tr>
<tr>
<td>Legislative/Executive review</td>
</tr>
</tbody>
</table>

| PHASE II             |
| Field surveys/additional info | 1-3 yrs |

Notes:

Deliberate/Systematic Resource Assessment (12 mo.)

1. Create universe of resource issues

<table>
<thead>
<tr>
<th>Literature research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthesis documents (RFP)</td>
</tr>
<tr>
<td>Task Force -- Exec. Order</td>
</tr>
<tr>
<td>Chief of staff</td>
</tr>
<tr>
<td>Agency Heads (selected)</td>
</tr>
<tr>
<td>Members-at-large</td>
</tr>
<tr>
<td>NGOs</td>
</tr>
<tr>
<td>Business Community</td>
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| Working group |
| Village meetings | (1-6 mo) |

| public input as to perceptions |
| what is the problem |
| to whom is the problem |
how serious/risks do problems impose
Strategic PR plan

METHODS/MEASURABLE GOALS
(COMMONWEALTH/NORTHERN MARIANAS ISLANDS)

TRAINING/INTERNSHIP
Establish training & internship opportunities
CZM Agencies (WHO)
1. Needs assessment
   island specific
   A. Type of training needed by agency
      1. Community college
      2. relevant agencies
      3. short-term technology training
   B. Explore Funding possibilities
      NOAA/OCRM
      new legislation
      CRM local
      new $$
      and/or
      PBDC
      use of local funding
      existing local-federal funding
      foundations
   CZM (local/regional)
   C. Explore IPA
      staff exchanges
   PBDC
   D. Inventory of existing training programs
   CZM-local
   E. Evaluate funding options for training - REALISTIC?
   PIN/PBDC
   F. Make contact with SPREP & other emerging FAS CZM programs --> x
      fertilization

Notes:
1. Long term
2. Exchange
3. Short term session
Intern Program
off island
Needs assessment - island specific

CZM Agencies
1. Type of CZM related training needed (by agency)
   1. community college
   2. relevant agencies
   3. short term technical training
2. Explore funding possibilities
   a. new legislation
   b. new money
   c. existing programs/local funds
      and/or
      use of local funding
      and/or
      existing local or federal program funding
      and/or
      foundation $$
3. Explore IPA

PBDC
4. Inventory of existing training programs
5. Evaluation of and determination of funding
6. SPREP contact and FAS CZM program

Special
Honest channelling fine $$ for CZM program and enforcement
* determine inventory of coastal resources - geographically specific
  identification of resources to be protected
Master plan components
  data base, inventories -- dollars
Legislation/local
  codification
  suggests a presidential legislation for commission
Establish EIA process
Recognition of environmental limits
Education for planners, training for licensed assessment officials

METHODS/MEASURABLE GOALS
(GUAM)
1. Aggressive education programs
multi-media
community-based

2. Integrate local participation (incentives)
   village satellite offices (clean-ups)

3. Improve available information
   computer systems (GIS)

4. Diversify funding sources
   independent, NGO, ultimately

5. Reform of directorship

6. Establish CAs
   direct links between users & management

7. Accountability/Performance reviews
   salary is based on measurable accomplishments

8. Deliberate/Systematic assessment of resource issues (current state of
   knowledge)

9. Incentive programs for:
   small business development
   NGOs

METHODS/MEASURABLE GOALS
(HAWAII)

Education of transient groups: tourists, fishermen, etc.
Problem: Transients view resource as collectables --> destruction
List resources endangered by lack of knowledge

Points of Contact:
   Tourist - airline magazines, customs, immigration; VCR in hotel, required
   of tour agencies
   Fisherman - agents, councils
   Allies - Chamber of Commerce, HVB, NGO, airlines/cruise ships/travel
   agents

Material tailored to outlook/language
Written & videotaped & community-based workshops, day tours, like aquarium
"Eco-tourism"

To develop material -- hire professionals
Get $$ from allies, other agencies, and our own agency
Scenario: Islands in the Mind
Trend One: increasing contamination of natural resources
- increased government spending for environmental cleanup
- increased business costs/spending for "clean"industry (to clean up waste from current processes, and research and develop new non-polluting processes
- new business opportunities
- Hawaii less desirable tourist destination
- more health problems; lower life expectancy
- survival values
- changes in food chain, agricultural techniques and foodstuffs
- increased demand on pristine environments

Trend Two: development of new "realities" through technology
- development of "Disneyland" realities to continue to attract tourists
- cult of technology demanded by people
- indoor recreational activities; and more controlled indoor environments
- bubbles; biosphere
- easier to manufacture, edit and sell "reality"
- less face-to-face communication
- your own "created" reality to escape reality and stay sane
- increased inward psychic orientation

Trend Three: increased leisure use of designed environments
- more "living parks"
- "cultural" zoos of the future
- "personal" media (newspapers, mags): personal control of information intake
- also leisure agenda smorgasbord: bring it to you no need to travel for it
- sex by machine perfected in 20 years

Scenario: Uncommon Alliances in Sovereign Hawaii
Trend One: growth in power of indigenous ethnic groups
- More ethnic groups, old boundaries obsolete; ethnic groups assimilating
- Regionalization of cultural groups; occurs economically as well
  1. Hawaiian sovereignty
  2. Tax structure change
  3. Environmental ethic based on Hawaiian values
4. Relationship with land defines new electoral arrangements: 
ahupua'a

5. Traditional dispute resolution
- Increasing conflict between traditional and modern systems, e.g.
fishing rights (see ahupua'a, mentioned above)
- Increased ethnic group power attending the increased use of the
  rights discourse in the political arena
- Conflict between modern and traditional resolved by regionalization
- Which ethnic group? e.g., individual rights vs. ethnic rights
- Right to choose vs. freedom of choice
- Increased cultural regionalization but increased economic integration
- Puna as center of cultural activity
- Central planning loses power to regulate: decentralization
- Hawaiian home lands communities become the owners of energy
  sources

Trend Two: increasing use of "rights discourse"
- possible "elite" group(s)
- neighborhood identification
- economic co-ops protected
- increased cost of increased rights: potential burden on state
- many functions removed from state control

Trend Three: development of "personal" scale infrastructure
- No geothermal development: "small is beautiful"
- Decreased bureaucratization resulting in decreased government costs

Scenario: Too Local to Be Global

Trend One: increasing concern for environment causing new conflicts
- total anarchy
- paralysis of decisionmaking
- increase in intergenerational conflict
- change in values
- emergence of special interest groups (greater #s, different types)
- specific conflicts (against military, subsistence people vs. other
  groups, big agriculture, big tourism; small resource non-intensive
  industries vs. large development oriented industries
- transformation of people overcoming resistance to change
- flight of business; difficult climate.

Trend Two: recognition of need to conserve and enhance human and natural
resources in business
- tourism reflective of Hawaii (natural beauty, aloha of the people)
- business made responsive to human needs (ie, housing)
- integration of family, community, workplace (workers housed in hotels)
- less transportation, moving information instead
- no "plastic aloha"

Trend Three: decentralization of human institutions
- decentralized state government leading to greater power and diversity for counties
- greater valuing on less developed islands
- empowerment of local communities; counties disappear although there is a need for funding for local communities
- perhaps services themselves decentralized but not funding/responsibility for provision, land use policy localized
- move info instead of people

Scenario: 21st Century International Marketplace
Trend One: decreasing first world birthrates, increasing third world birthrates
- increasing automation in manufacturing and service activities; heightened productivity.
- increasing imbalance in resources (who has them): land/labor/capital/information
- increasing labor costs in developed countries; more compensation (???) for tourism -- fewer visitors; cost of tourism declines in third world
- Japanese offer incentives for increased birthrates: "motherhood awards"
- opening up of markets (particularly agricultural) outside the U.S.
- increase in illegal immigrants, coloring of America
- strategic alliances between US and foreign businesses
- increased employee ownership of businesses
- corporate enclave housing; increased corporate security -- corporate "armies"
- corporate olympics -- teams don't belong to towns, regions, countries; belong to corporations///absorb energy of disenfranchised third world athletes
- privatized social services -- in foreign sites, acts as corporate "foreign aid"
- given increased automation, increased production per capita, increased 3rd world birthrates, corporations must move towards capital ownership plans and/or privatization of services

Trend Two: shifts in global capital flows
- purchased residencies/citizenships: selling visas as a way of attracting "investment capital"
- Mexico taking capital investment away from East Asia
- less concern for anti-trust considerations outcome of GATT negotiations
more Korean capital available, possibly also more Taiwanese
foreign investment increasingly common everywhere
overseas military spending re-locates to domestic U.S. sites
ownership transfer corporations: e.g., Molokai ranch owned by
Molokai residents
geographic/time-imposed/political boundaries weakened with
enhanced communications
boundaries re-imposed according to corporate lines
Trend Three: increase of free market forces taking over federal government
duties
corporate incentives -- bidding for labor
increasing privatization in education
two-tier educational system – way to increase trained labor force:
vocational vs. college prep tracks
Hawaii Stock Ownership Plan
"Walt Disney runs traffic department"
more plantation housing
decentralize/privatize social services
decreasing unionization
universal stock ownership
corporate investment in community (e.g. Lanai) projects as social
safety valves
more NGOs
LITERATURE CITED


