Lessons from using scenarios for strategic foresight

Clem Bezold

Institute for Alternative Futures, 100 North Pitt Street, Alexandria, VA 22314, USA

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ABSTRACT

Strategic foresight requires a longer and broader view of the environment and, as we at the Institute for Alternative Futures (IAF) would argue, a conscious attention to the organization's vision and visionary scenarios in the environment. Having promoted foresight on six continents for a wide range of governments, corporations, and non-profit organizations, we have developed lessons on the design and set-up of foresight efforts, their use and follow-through. Lessons include: Scenarios using 'aspirational futures' should include expectable, challenging, and visionary alternatives; beware of and understand 'allergic reactions' to foresight given some individuals', particularly leaders', psychological preferences; foresight is most effectively done by and for top leadership but foresight for units or regions of the organization can also be successful; to get the most value, it is important to err on the side of boldness and vision in developing scenarios; foresight efforts create a 'safe space' for exploring challenging situations; associations as collections of companies or professionals have unique foresight needs including elected leadership that rotates every year, and the need to communicate the results of foresight efforts to their members effectively; government and corporations have more similarities than differences in foresight, but companies have more resources and can move quickly to develop and use the foresight.

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1. Introduction

Most organizations fail to consider more than a narrow set of obvious factors. Strategic foresight requires a longer (10 to 50 years or more) and broader view of the environment, the organization and its strategies. Scenarios are a leading tool for taking such a longer and broader view. This article will identify lessons on using foresight based on our experiences with a wide range of organizations here at the Institute for Alternative Futures (IAF) and Alternative Futures Associates (AFA), which is IAF's for-profit subsidiary. To provide context, I will first describe the IAF, the nature of our work, and our 'aspirational futures' approach. I will then provide the lessons.

The Institute has three decades of experience developing and using scenarios in governments, non-profit organizations, and companies. We started our futures work focused on 'anticipatory democracy' and foresight in communities, organizations and governments (both executive and legislative branches of government) [1–3]. Five years later, in 1982, we founded our for-profit subsidiary, Alternative Futures Associates. We have worked for a wide range of organizations in all stages of foresight efforts. These organizations include many Global Fortune 100 companies; not-for-profit organizations, including the largest—the American Association for Retired Persons (AARP) and the American Cancer Society; governments and community groups in cities; state government agencies, legislatures and courts; national governments in North America, Europe, Africa, and Asia, and the World Health Organization. We have developed scenarios or conducted scenario coaching for clients on six continents during that time. And we have evolved our particular approach — 'aspirational futures' [1–4].

1.1. Aspirational futures

Strategic foresight is successful if it inspires the organization to learn more effectively and to be more creative in developing strategies and initiatives, and if it helps to pursue the organizational vision with more potent results and thus make it more successful. To accomplish this effect, strategic foresight requires that organizations look out further into the future than is typically done in strategic planning (5 to 10 years). Strategic foresight must also consider the organization's vision within the context of its environment. Scenarios allow an organization to do both, look into the future (typically 10 to 50 years) and consider likely and visionary possibilities. We argue that scenarios should consider a range of expectable (most likely), challenging (what could go wrong) and visionary (surprisingly successful) possibilities. This inclusion of these three types of possibilities, particularly potential visionary paths, is a differentiating factor in our approach to scenario construction. More will be said on this below.

1.2. Scenarios

Scenarios are parallel stories about how the future will unfold. Scenarios can take many forms depending on 1) the objectives for the scenarios, 2) the resources of the organization focused on the scenario effort, 3) the culture and planning style of the organization, and 4) the psychological preferences of the audience (see below). The ultimate shape that scenarios take ranges widely from parallel images or cartoons of the same scene to a text and narrative report and even to live or virtual/visual vignettes. Scenarios can also be primarily qualitative or heavily quantitative, depending on the routines and resources of the organization.

There are several approaches to scenario development and use. We argue that scenario sets should include three or four scenarios. The first should be the organization's best estimate of the most likely future — this is the expectable future. Developing this scenario requires gathering available intelligence on trends and forecasts, identifying major forces in the environment and clarifying the organization's assumptions. The second scenario should consider 'what could go wrong'. There are many challenges that organizations face. This second, 'challenging' scenario should consider a taxing, but not overwhelming set of challenges. The third and fourth scenarios explore paths to surprising success. If forces in the environment successfully created visionary outcomes, consistent with the organization's vision, what would that look like, and what would be the path to that visionary state? The third and fourth scenarios should identify differing paths to visionary outcomes.

In contrast, the most widely used approach to scenario development is the method developed largely by Peter Schwartz and his Global Business Network [5,6]. Also called the double uncertainty, or 2×2 matrix approach, it has scenarios developed in each of the four quadrants of a grid whose axes are defined by the 'most important' and the 'most uncertain' factors facing the organization or topic. This is a useful approach for categorizing drivers as well as targeting key uncertainties and organizing scenarios around them. As Curry and Schultz point out, reducing the focus to two axes does simplify the effort but requires picking drivers that are sufficiently different from one another to generate a strategic conversation [7]. Thought should also be given to drivers of the underlying system as well as the dimensions of likely, challenging and visionary are each critical also. The double uncertainty approach diminishes the contribution of scenarios by not including visionary paths among the plausible paths into the future. As scenarios shine light through uncertainty, they define pathways we can 'see'. They should aid in exploring plausible and preferable space. They should help understand how surprisingly successful conditions can occur. Of course, it takes judgment to identify what surprisingly successful even means or define what it would look like if effective stakeholders achieved conditions that parallel the organization's vision takes judgment. It also requires clarity on the organization's vision. Our aspirational futures approach requires effort in considering the organization's vision and how that would translate into visionary conditions in the environment.

Using this aspirational futures approach in a wide range of settings has led me and my colleagues to consider the lessons of designing, delivering, executing and reporting on foresight. We also confront leadership challenges, the special requirements of associations, and the differences between government and corporate foresight.

2. Benefits of foresight

Organizations seek the following benefits of foresight:

- Heading off problems
- Dealing with problems when they are easier to solve
- Improving perception of opportunities and options
- Clarifying vision- or mission-focused objectives
- Generating audacious goals that motivate and align effort
- Monitoring the future to check plans.

Yet many organizations and particularly governments are organized in ways that make foresight less likely to occur and make foresight more likely to fail when it does occur.

3. Challenges to effective foresight

The challenges to effective foresight are many. Foresight, in itself is not a panacea for wiser, high performing organizations, and there are limits to what foresight can accomplish.

For example, the United States Federal Government is particularly 'foresight challenged'. In 2003, the National Commission on The Public Service released a report entitled "Urgent Business for America: Revitalizing the Federal Government for the 21st Century" [8]. The Commission identified a host of shortcomings in the Federal Government including ill-coordinated and overlapping functions across agencies, too many political appointees, and the often narrow focus of Congressional committees. It is often surprising that foresight is done at all in this context and in those times when foresight is done, it is understandable that it is often not heeded.

Within any type of organization reasons like those quoted below are given for not pursuing foresight:

• We're too busy to think about that.
• That (thinking about the future or dealing with solutions beyond the current approach) is not my responsibility.
• It is impossible to do effective forecasts for many subjects.
• We can't get our leaders or our stakeholders to focus on the future.
• Politically sensitive issues would prohibit considering necessary alternatives.
• The organization is locked into world views and has assumptions that we do not even recognize.
• We need to explore alternative futures for policies but the finance side of our company won't allow their serious discussion.

4. Psychological preferences and challenges to foresight

We have found that a person's psychological preferences can shape how they consider foresight. Indeed, for some types, foresight can generate "allergic reactions". The Myers-Briggs Type Indicator (MBTI) is widely used in companies and some governments. The MBTI is based on the observations of Swiss psychiatrist Carl G. Jung who noted that differences in behavior result from people's inborn tendencies to use their mind in different ways, particularly in how they take in information (perceiving) and come to conclusions (judging). Perceiving can focus on the concrete/specific (Sensing — S) or on intuition — N. Judging can be done more objectively by thinking — T or more subjectively by feeling — F. Jung also observed that individuals tend to focus their energy and be energized more by the external world of people, experience, and activity (extroversion — E), or more by the internal world of ideas, memories, and emotions (introversion-I) [9: 6–7]. Jonathan Peck, IAF President, points out that most futurists commonly prefer the 'intuition' form of perception (what Jung called instinctive apprehension), while the majority of individuals have an opposite preference 'sensing' and take more detailed, fact-based views [10: 111].

It turns out that the modal type for leading executives in government and corporations are 'STJs'. These 'Sensing, Thinking and Judging' individuals focus on details, process in their heads rather than their hearts, and can come to conclusions quickly. They often react negatively to the uncertainty that scenarios raise and find exploring the future to be stressful. Alternatively, 'Intuitive Thinkers,' or NTs, can deal more comfortably with scenarios that provide a systems view. For 'Intuitive Feelers', or NFs, value and vision work comes most naturally as an approach to the future, while STJs tend to ignore work on values and vision in the organization and can be suspicious of any claim to know what the future holds. We have learned that exposing participants to these insights about type preferences can aid them in perceiving if they are having an allergic reaction of sorts to their psychological preferences. Reminding participants that it is everyone's job (but particularly the leaders' job), to deal effectively with the uncertainty and possibilities of the future helps those with allergic reactions to be more successful in foresight activities.

For leaders who prefer focusing on factual details, scenarios should be written as specific and concrete images of future states. Peck points out that one reason the scenario focused on the expectable future (the 'most likely' first scenario in our approach) is so important methodologically because it provides an entry point for those who have a preference for taking in information through sensing. Having the first scenario linked to today's facts and current trends, as the first 'most likely' scenario is, makes STJ persons better able to absorb the scenarios.

5. Foresight design — where to initiate and do foresight

Foresight often identifies the need for major change. Having the right levels of the organization and its stakeholders involved becomes critical when this is the case.

Ideally foresight for an organization is done from the top. In a corporation, this would mean working with the CEO or other senior leader. In government agencies, it would be the senior ministry officials, both political appointees and senior career officers. Much foresight is indeed focused on this level. Yet the components or sub-units of organizations need foresight as well. Thus the marketing, R&D, manufacturing, or human resources units of companies periodically do foresight. Also when global companies do scenarios, their regional or large national subsidiaries often recognize that, given the more unique characteristics of their region or country, they need to do their own scenarios. In governmental agencies, mid-level agency personnel with responsibility for defined functions can also develop and use foresight effectively — this could be called 'leadership from the middle'.

Foresight is done periodically through scenario planning, as well as continuously through environmental scanning or horizon scanning. This is the case in the best foresight operations, such as government activities in the United Kingdom and Singapore.

Scenarios are most often used at a workshop or learning/planning session where the client audience typically 'steps into' the scenarios and explores their implications. In presenting the scenarios, the facilitator or workshop leader must grab participants' attention and convey differences within the scenarios. Presentations of the scenarios that include performances, whether live or

virtual, can be helpful, as well as visualization and guided imagery. Vignettes of events and people's experiences also prove helpful in getting workshop participants to step into each scenario.

If leading a workshop, be sure to clarify who the audience is and what its objectives are at the outset. Typically scenarios include the macro environment and the operating environment. For example, the operating environment in scenarios for a corporation usually means the industry environment, e.g. pharmaceuticals or a specific disease area. The scenarios can create alternative images of the organization itself, but usually in our work they do not.

It is important to involve relevant stakeholders inside the organization in the process. In corporate settings, we have found that there can be hostility to scenario efforts from the finance or accounting divisions of the company. They are among the most concrete and specific people in the company and usually have economic forecasts which they see as both likely and useful to the future and are uncomfortable with alternatives, particularly developed via different methods. Therefore it can be helpful to bring in examples of successful scenario use in other companies. One of our corporate clients successfully lowered the antagonism of the finance department by having a member of the Shell corporate scenario team speak about his experience early in our scenario workshop.

6. Lessons for developing foresight projects

Some overall lessons on developing foresight projects, particularly using scenarios, for effective internal learning and decision making by organizations include:

- Use the scenarios to expand recognition of the organization's aspiration/vision and of uncertainty;
- Have management request scenarios that explore key areas of uncertainty and include a plan for subsequent scanning in relation to the scenario 'signposts' with yearly or twice yearly reporting on these;
- Generate input for scenarios from stakeholders and internal users, especially any forecasting or strategic planning groups in or related to the organization. (In technology focused companies executives charged with acquisitions are important sources for forecasts.);
- Use engaging titles for the scenarios. Also, wherever possible, increase engagement using images, stories and summaries for the scenarios.
- Err on the side of boldness and vision. The value of scenarios is greater when more diversity is considered, and generally the future will include more rather than less change. Vision – the noble purpose of the organization – needs to be focused on in the scenarios.
- Release the scenarios as a marketing and educational campaign; set-up their use throughout the organization; have appropriate training material and facilitators to encourage those using the scenarios to 'step into' each of the scenarios and explore the implications.
- Wherever relevant, generate outside attention for the scenarios. For scenarios which include challenging images it is often useful to get outside experts who are respected in the organization to reinforce the forecasts. Likewise, in some settings having the scenarios published earns them more attention inside the organization.
- Establish 'signposts' to track the movement toward each scenario and incorporate into ongoing environmental scanning, involving internal stakeholders. Have the organization regularly consider what the signposts say about which scenarios are more or less likely and the implications for the organizations strategy.
- Take advantage of other government and private resources to reinforce the scenario work. Reinforce the forecasts used in scenarios by incorporating available government or corporate assumptions — particularly in the first, expectable or most likely, scenario.

In conversation, Bill Rowley, former IAF COO and Senior Futurist, added these lessons from developing and using futures efforts:

- Futures efforts create a safe space. They are far enough out in time and focus to encourage participants to be more open to collaborating, to understanding other views, and to developing trust among participants. As a result, participants are more likely to let go of their paradigms, innovate, and take risk. Possibilities are also explored more robustly in this context.
- The view of the operational environment is what dominates the focus of most organizations; a futures process expands that view beyond the operational environment into changing circumstances and novel opportunities. Participants can see interconnectedness and interdependency in complex environments better;
- Participants and their organization can clarify and test their assumptions, ideas, values; this helps clarify purpose and aspirations. As a result, participants discover future actions that are consistent with values and purpose.
- If stakeholders from throughout the organization become involved in the development and use of the process they define *their* shared future, understand what needs to be done and develop inter-organizational relationships to work together in creating it;
- The most powerful futures processes include the development or refinement of the organization's vision. That creates the challenge of translating vision into reality. Leadership's support and involvement is critical. The process needs to create a compelling vision that has buy-in from the leadership. On the part of the leaders, this requires a tremendous commitment to

making the vision real, plus recognition that it takes a long time. In short, organizations, particularly leaders, must carefully consider whether it is worth the effort before they begin.

6.1. Foresight in associations

Trade associations of companies or professional associations of members have some unique characteristics. They focus on the industry or sector and may play various roles in standards and guidelines for the field. They may also be promoting the field, certifying or credentialing, lobbying for their members. Marsha Rhea, a former association executive and IAF Senior Futurist, has noted several lessons for foresight in associations:

- Most associations have rotating elected leadership, often serving 1 year terms, sometimes with a president-elect year, a presidential year, and then serving as past president on the board for the year after their term. For a futures effort, it is important to have the right leadership team in place. A futures effort is most likely to be a multi-year project covering several presidential terms;
- Encourage participants to recognize that thinking about the future is a safe and effective way to open up controversial topics and clarify values for the profession. The future puts things in the right context for smarter decision-making;
- The foresight effort benefits from opening up the process to all the people and organizations you will need to help you create a preferred future. Members and stakeholders who are engaged in strategic foresight processes are more likely to understand and support change in the voluntary sector;
- Begin with the end in mind. Know what you want to accomplish with the futures process and never lose sight of that outcome;
- Plan to spend money. Do not be penny wise and pound foolish. This is a serious investment in the future effectiveness of your association. A futures process can typically include an environmental scan, forecasts and scenarios, a session to engage the future (this can be a focused workshop for the board, sessions at an annual meeting, or a national summit for the profession);
- A futures effort should be seen as a continuous process integrated into the association's planning, budgeting and decision-making cycles, and always renewed and revisited in other follow-on programs and activities. A great futures project keeps on giving to the profession.

6.2. Government versus corporate foresight experience

Most of the challenges and opportunities for effective foresight are similar between government and corporate use of foresight. Scenarios should press the organization's learning, stimulate imagination and enhance aspiration. In both government and corporate settings, identify the organizational culture values and determine how locked in participants are into a particular paradigm, especially where the organization's paradigm is not recognized and cannot be discussed. However here are some useful general differences based on our experience:

- Corporate efforts generally are more focused and often bring greater resources to the scenario effort;
- Corporate executives tend to be more ready and quicker to act on the results of a scenario effort;
- Companies tend to have in-place scanning or planning processes which can do the signpost monitoring and integrate the results of the foresight exercise.

7. Conclusion

As change accelerates and uncertainty increases, using scenarios exploring that uncertainty is a critical part of strategic foresight. Scenarios are not the only tools, but they accomplish a broad range of objectives. It is critical to focus the objectives for the organization, gather the needed resources (both financial and top management time), consider and involve key stakeholders, integrate the effort into ongoing scanning and planning. Develop scenarios that explore expectable, challenging, and visionary futures. Present the scenarios in ways that engage and allow users/participants to "step into" each future. Identify the implications scenario. Develop signposts that would say if we are moving toward one or another scenario; in the upcoming few years the organization will need to monitor and revisit the signposts. Strategic foresight can be enhanced using scenarios and related tools, but diligence and commitment are needed for the effort to be effective.

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Clement (Clem) Bezold, Ph.D., is Chairman and Senior Futurist of the Institute for Alternative Futures, Alexandria Virginia, USA. He received his undergraduate degree from the Georgetown University School of Foreign Service and his Ph.D. in Political Science from the University of Florida. With Alvin Toffler and Jim Dator he founded the Institute for Alternative Futures. He has led IAF's futures work in a wide range of industries, primarily for large non-profit organizations, large companies, and government agencies, including scenario development on six continents. He can be contacted at cbezold@altfutures.org.