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From my perspective

Scenario planning☆

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ABSTRACT

Today the question of what scenarios are is unclear except with regard to one point—they have become extremely popular. Many people see scenarios as forecasts of some future condition while others disavow that their scenarios are forecasts. Yet looking at scenarios that do not come labeled as forecasts or non-forecasts, it is difficult to tell them apart. The purpose of the scenario is at a meta level, since the scenario usually does not speak for itself in terms of its purpose.

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"Scenario" was introduced into the common language as a term to describe a movie setting. *Webster's Ninth New Collegiate Dictionary* tells the story and the history of the scenario in three definitions:

- 1. "An outline of the plot of the dramatic work, giving particulars of the scenes, characters, etc."
- "a) The outline or sometimes the complete script of a motion picture or a television program, often with directions for shooting; b) shooting script."
- 3. "An imagined sequence of events, esp. any of several detailed plans or possibilities."

The third definition is closest to what futurists do. The most recent impetus in the popularization of scenarios as a planning device is the fine book by Peter Schwartz of The Global Business Network, entitled The Art of the Long View. The ambiguity of the meaning of the word "art" nicely fits with the creation of scenarios as a futurist's activity. The big push for scenarios as an organizational or institutional device for clarifying thinking about the future goes back to the Department of Defense in the 1950s. Herman Kahn was central to raising the awareness of the military, which is often purblind in regard to subtlety, to the potential complexities of nuclear war, Kahn's monumental contribution to military thinking was his escalation ladder. The world is not a world of nuclear war or no nuclear war. There are distinct variations or stages of what may occur between "war" and "no war" under different circumstances. His escalation ladder described a sample of those steps. To lend reality to those steps one has to have detailed accounts on how they may arise, be responded to, and resolved to create a new terminal or baseline situation. That can only be done by dealing with complexity. The human mind is capable of profound integration, but that is laborious. The great value of a scenario is being able to take complex elements and weave them into a story which is coherent, systematic, comprehensive, and plausible. The military has had great experience doing that, thanks to Kahn. They also developed the scenario war game as an equally valuable contribution to understanding conflicts. The most interesting from the scenario point of view are the policy games in which the military, the State Department and other government officials role play in situations that are thought to be realistically plausible. They will go through several rounds of interaction. In the scenarios, no one has total knowledge of the situation with the exception of central or control who plays the god-like role of watching and interpreting the changing situation based on the responses of actors in the scenario. The game's god sets the situation for the second and subsequent rounds. There is no doubt that it is a powerful training tool, so much as that the quality of one's participation in a game can be entered into an officer's dossier.

Scenarios as used in business, other organizations, and government planning fall into two broad categories. One is scenarios that tell about some future state or condition in which the institution is embedded. That scenario then is used to stimulate users to develop and clarify practical choices, policies, and alternative actions that may be taken to deal with the consequences of the scenario.

The second form tells a different story. It assumes that policy has been established. Policy and its consequences are integrated into a story about some future state. This second type of scenario, rather than stimulating the discussion of policy choices, displays the consequences of a particular choice or set of choices. The first category of scenario is largely to stimulate thinking and the second is to a tool for explaining or exploring the consequences of some policy decision—either hypothetically or actually made.

Why has the scenario become so popular in the business community? The answer is simple. The world has become more complex and at the same time it presents everlarger elements of ignorance or unfamiliarity. As business globalizes it puts the typical large business in the position of dealing with customers, suppliers, regulators, cultural, social,

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governmental, and economic factors different from the ones that they are most familiar and comfortable with. Scenarios come to the rescue. They are educational, and integrative in dealing with the complex new factors.

How do you create scenarios? The answer to that is like the answer to many other questions about art forms. One way is to do it by doing it. Another way is to practice or receive training and then use the general rules or guidelines you learn. "How do you create scenarios?" has the directly analogous response to "How do you dance?" or "How do you paint a portrait or write a novel?" The rules, the hand holding, the guidance and the feedback are all important, but as important as all of that is having the knack or the gift for creating them.

In our own work, we frequently make a third use of scenarios as mere illustrations in much the way that a cartoon or a diagram is a mere illustration. For example, we may be writing about home banking or eating a meal or traveling from St. Louis to Chicago in 2020. These scenarios as illustrations have strictly limited bounds and a narrow, limited purpose. It is to illustrate in a coherent and presumably engaging way, something which has already been described in text. That kind of scenario is the equivalent of a sketch. Much more important and interesting is where the scenarios are intended to be serious in policy or planning as a way to illustrate and map a range of realistic future situations. For example in one study completed a couple of years ago, we developed 14 scenarios on the future of the automobile which covered virtually every aspect of its location, and all of the who, what, when, where, and whys associated with its future. For serious purposes, one needs a systematic approach. Creativity is important, but as important is that one has to be credible to the user or the recipient of the scenario. The ideal scenario is transparent in the sense that the user knows what the rules of the game were for its construction, understands the stepwise process by which it was produced and sees the result with the feeling that he or she could go through the process and come up with similar results. Only when that transparency exists, does the scenario have a degree of credibility that will move an organization to consider significant change.

The process we use is straightforward. If the reader does not understand the process that is about to be described then we fail in the first step of transparency. The steps in creating the scenarios are given below:

- Identify and define the universe of concern that you are dealing with, as I suggested above, the automobile, worldwide, in 2015.
- Define the variables that will be important in shaping that future.

This is an intense and critical activity. Identify the variables but do not supply values for them. Common variables include costs, environmental concerns, market size, geographic location, power plant and on and on and on?

One must use all the knowledge one or one's team has in enumerating those variables, working them back and forth, arranging them into some superordinate and subordinate relationships and finally settle on a working lists. From 6 to 18 or 20 variables can enter into preparing complex scenarios. All variables will not be equally important in all scenarios.

• Identify the themes for scenarios.

This is to a large extent judgmental, and creative and depends upon experience in building scenarios. Since there are an intrinsically limitless number of scenarios that can be created from a large number of variables, the goal is to identify in that multidimensional scenario space critical points that illustrate significant possible futures. After one works up an extended list, of perhaps 8 or 10 of scenario themes pull them apart; put them back together until there is a set of themes that seem to be most significant. It is usual to work with 4 or 6 themes for most purposes. The even numbers avoid the temptation to choose a

middle one. One can, however, have fewer or far more. Fourteen automotive scenarios were noted above. Example of themes are, "Environmental Concerns Dominate Car Design," "Vehicle Lifetime Doubles," and "The Largest Markets for Cars are Worlds 2 and 3." There is no rule for identifying the themes. There are principles however. The fundamental principle is that one wants to identify the themes that illustrate the most significant kinds of potential future developments. Each theme is generally clustered around one or two primary variables dominating a future situation.

• Create the scenarios.

It is convenient to do that in two stages. In the first stage, take a theme and go down through each of the variables to judge for that theme a plausible value of the variable. The value may be quantitative or qualitative. In doing this, you will find that for some themes, some variables do not count and they can be just dropped out of the subsequent steps, or they can be treated in a bland or a neutral way in the scenario

- Write the scenarios. If several people are involved in the task, different members of the team undertake to write different scenarios. The scenarios as stories can be in any literary format, e.g., a speech, a news article, a letter, a memo, a trip report, a transcript, and so on.
- The team comes together for reading, review, and evaluation. Are they interesting? Are they well written? Are there incompatibilities within the scenario? Have all of the points been made adequately? Can a point be made more incisively than it has been made? This step is a substantive and literary critique. The process goes back and forth, and may be repeated two or three times until each of the scenarios is in a satisfactory condition.
- An optional step is to have one person go through all of the agreed on scenarios to give them into a uniform style. That is not always necessary or even desirable. But more often than not, one wants some uniformity of style.

The scenario method described above is for the production of those scenarios which describe a range of alternative futures. After the scenarios are written, one moves to the question of the implications for the sponsoring organization, for the company or the agency. Sticking with the car illustration, one conclusion may be that for ACME Car Company, the biggest future market is in World 2 and that of the most likely requirements or characteristics for a successful vehicle in that world are a, b, c, d, e, ... The development of implications is separate and distinct from the scenarios and may be done by the scenario teams or the users or both together.

The strength and the limitation of the scenarios up to this point is that they are descriptions primarily of the external world the organization must respond to. One can go a step further with scenario building and in terms of everything that one has learned, create a scenario about the future for the ACME Car Company. One then goes through basically the same steps described above involving the values, the variables and so forth. But now you introduce into that new scenario, the decisions which ACME has made and the policies it proposes. That scenario is different from the others in that it doesn't just describe an external world but it describes the consequences for the company of the actions taken by ACME. That scenario is normative, i.e., goal directed, in that it reports explicit actions the company takes to influence its position in the world market. Our experience is two-fold with regard to scenarios. The first, they are valuable as an educational tool. They do inform people. If effectively done, they integrate what would otherwise be bulleted or enumerated points. Integration is a great step forward in understanding. The scenarios illustrate the inter-relationships among the variables under consideration. However, equally important is the realization that some people are almost allergic to scenarios. They find them childish, even infantile, with no value, just foolish game playing. Since

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