

The Reverse Engineered Future: Charting a Path in Uncertain Times

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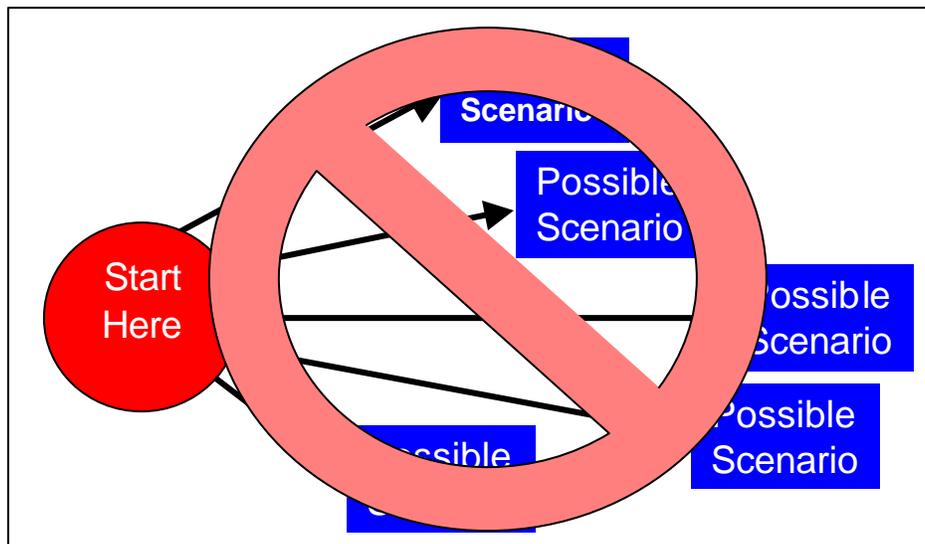
Reverse Engineering the Future

Companies in the technology sector must begin the processes of reinventing, repositioning, and redirecting themselves toward a more effective and successful future, the hardest part of which is getting started. Faced with an abundance of data, companies often enter the stage known as “analysis paralysis,” stalling for long periods of time as they attempt to understand their own futures. And even when they manage to extricate themselves from the flat spin of data overload, they often move into a period of planning during which they create multiple possible future scenarios, assign probabilities to each, filter using Bayesian theory or other heuristic methods, and at the end they are no closer to understanding where the future is taking them than they were when they started. An alternative technique is needed; that technique is called *Reverse Engineering the Future*.

The best way to predict the future is to invent it.

–Alan Kay

How it Works



Because of the scatter plot of outcomes that results from traditional extrapolative planning, a second technique can be used that results in a single scenario. However, unlike traditional scenario planning techniques that begin at “time zero” and extrapolate into some indeterminate future as shown above, this method begins in the future and reverse-engineers to the present. The technique is based on the assumption of a desired and reachable outcome. It is also based on the belief that attempts to reach that outcome by extrapolating from the present will inevitably result in a “quicksand effect” that mires planners in the certainty of the past and the unyielding roots of the present. It is therefore critical that planners pick a point in the future that is far enough out that it becomes possible to let go of the present and past and make assumptions that are free from their grip.

The goal of the reverse engineered future is to achieve a vision that everyone involved holds in high esteem and which all agree will move the organization forward in the best possible way. Unlike scenario planning, which starts with objectives and action plans and works toward the desired vision of the future, this process begins with a vision and ends by defining the action plans that will make it achievable. There’s an important point here that must not be missed, however. In addition to the “suspension of disbelief” that is required to let go of the past and

present, the process assumes that the vision is both achievable and to a large extent a foregone conclusion: it *will* happen.

The Components

The process has five components: an achievable vision; a set of powerful organizational values; a desired mission and completion date; a strategy for achieving the mission; a set of objectives required to enable the strategy; and finally, an action plan that facilitates reaching the objectives. Each of these components is different, yet each is related to the others. We will describe them in turn.

The Vision

"It's only by using your imagination that you can escape the thinking person's most dangerous mindset: To consider only those futures that can be readily extrapolated from where we are today."

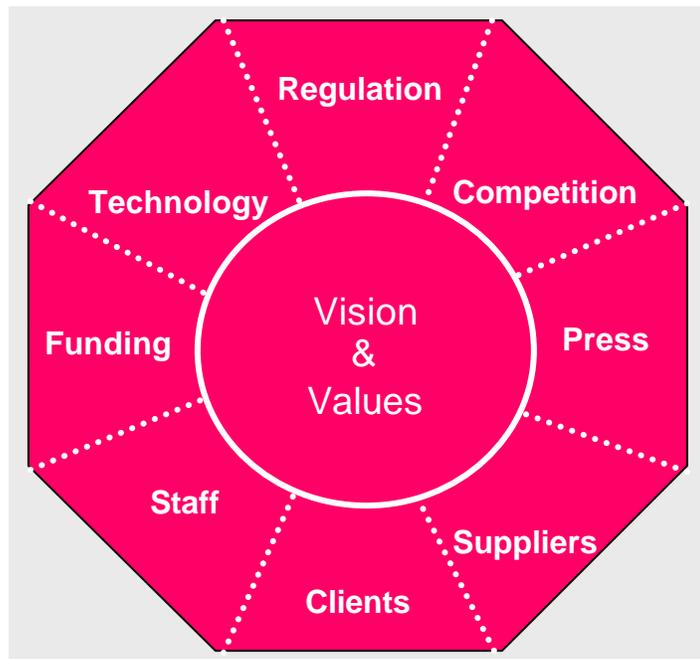
-Harlan Cleveland,
Nobody in Charge

The vision is the statement of the desired end state. Critical to the creation of the vision is the willingness to let go of "how things are done today" and proceed as if the organization is being created for the first time. Participants have the freedom to design the future organization, free from the detractors of the past and present. In traditional scenario planning exercises, it is common to hear participants observe, "We don't do it that way." That kind of thinking must be left behind: Consider the quote from Harlan Cleveland in the text box at left.

The vision can be as far-reaching and dramatic as participants desire, provided it is achievable ("We will offer teleportation services in 2006" probably won't cut it) and can be achieved within the agreed-upon timeframe.

Values

Values are perhaps the most critical component in the reverse engineered future because they define how the organization wants to be viewed by its customers, peers, partners, and competitors. These values come from the heart and define how the corporation should behave in the community, regardless of whether that community is a small town or the world. According to Morley Winograd, Executive Director of the University of Southern California's Center for Telecommunications Management and an authority on the reverse engineered future, "The vision of the organization should grab your heart, and must be based on a set of core values that define what the organization stands for.



Furthermore, the vision can *never* be achieved. It pulls each person – and therefore, the organization -- forward, touching a person’s reason for living.”

In the technology business, the vision and values of the corporation are surrounded by a set of powerful forces that senior management must deal with if they are to achieve the vision and grow the organization. Many of the terms that surround the center of the diagram shown above are traditional organizational influencers. *All* of them have the ability to affect the success or failure of the organization as it moves toward its future, and management’s task is to balance the impact of the external forces against the movement of the internal organization as it moves forward. The corporation *must* be cognizant of this relationship, because an organization whose vision and values are misaligned with the external forces that affect it will sicken and die. On the other hand, organizations with powerful and compelling visions of their own futures, based on a set of strong and equally compelling values, will not only flourish, they will see the outside forces slowly, inexorably align themselves with the firm – *because* of its vision and underlying values.

The Mission

Unlike the vision and values, the mission of the organization is somewhat more tangible. Most organizations have “mission statements” that they share widely with the world; in fact, most of them are not mission statements at all – they are vision statements, or perhaps even strategies. “The mission,” says Winograd, “grabs your attention, not your heart. It pushes the organization forward and, unlike the vision, *must* be achieved if the organization is to be successful. And while the vision makes us passionate about life, the mission makes us passionate about our jobs. Both are necessary in a healthy, growing organization.” The mission must have a completion date associated with it, and that date *must* be met.

Probably the most important management fundamental that is being ignored today is staying close to the customer to satisfy his needs and anticipate his wants. In too many companies, the customer has become a bloody nuisance whose unpredictable behavior damages carefully made strategic plans, whose activities mess up computer operations, and who stubbornly insists that purchased products should work.

-- Tom Peters, *In Search of Excellence*

The Strategy – et al.

Whereas the mission contains a statement of the desired set of accomplishments and a completion date, the strategy contains a clear description of how the mission will be achieved. This strategy can have various stages, but each must build on the next and each must have clear goals associated with it.

Once the strategy has been formulated, objectives can be formulated and an action plan developed. Since the process begins with the future state of things, the rest of the process is based on identifying all of the obstacles, challenges and issues the corporation will encounter on the way there and creating solutions to them.

The Reverse Engineered Future in Practice

We have guided more than 80 organizations through a reverse-engineered future planning exercise with consistently powerful results. Participants have included boards of directors, senior management teams and strategic planning organizations. The tool works well in organizations of



all sizes and responsibilities and across the spectrum of organizational functionality. As one state government participant observed, “This organization has been in existence for nine years and has been meeting regularly, every month, since its formation. This is the first time in nine years that we are leaving a meeting and actually have a tangible, achievable plan for our own success.”

In 1997, author Robert Littell published *Walking Back the Cat*, an espionage thriller in which he describes a technique used by espionage agents to deconstruct the future. The book is fascinating both as fiction (a good read) and as a mock case study of the reverse-engineered future technique. Fact is better than fiction, however, and the reverse-engineered future is a compelling and powerful planning tool. Flexibility, however, is a hallmark of the nimble, responsive corporation; when conditions change, the successful corporation must be able to change quickly in response. It changes quickly and most effectively when it uses information wisely and to great effect through the judicious deployment of knowledge management and data mining techniques. These capabilities provide corporations with the wherewithal to anticipate future changes and prepare for their impact, long before that impact is known. This quote from John Browne of British Petroleum says it all:

“In order to generate extraordinary value for shareholders, a company has to learn better than its competitors and apply that knowledge throughout its businesses faster and more widely than they do. The way we see it, anyone in the organization who is not directly accountable for making a profit should be involved in creating and distributing knowledge that the company can use to make a profit.”

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For more information about the Reverse-Engineered Future, please contact the author.