

Vision Planning

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It's a great design, but we're not going to product with it." How many times has this happened to you? You have been involved in a major project ("design team," "study team," "task force," "strike team," etc.). The results were highly acclaimed and the project deemed successful, yet a commercial service or product was never developed. This is not only a great waste of resources, but it is also a very disheartening experience for everyone involved.

Likewise, many times, it has seemed that the need for a particular product or service is clear, but the role your company, group, or organization should play in that future is not clear. How does this product fit into your company's plans for the future? Is this the product to spend the resources on, or is there a better alternative? At what point in the adoption curve do we want to become a major player in the market? If the organizational response to a critical product or service need is to "do nothing," then it loses the time value of action.

Perhaps you are fortunate and this has never happened to you. However, my own corporate experience and consulting work tells me that this is happening all too frequently in companies and other organizations. Why does this happen? Again, based on my personal experience, this inaction is typically caused by the lack of a commonly-held vision for the future (either the future market needs or the future nature of the company). The results of the project don't match the leader's view of the future, so they are never implemented. The problem is that either the leader has no real view of the future, or he/she does not consistently communicate that view. If a vision of the future is not well known and embedded in the planning system of the organization, it is not automatically a part of all activities—including strategic planning, product or

system design teams, and task force deliberations.

Designing the Future—The Visionaries

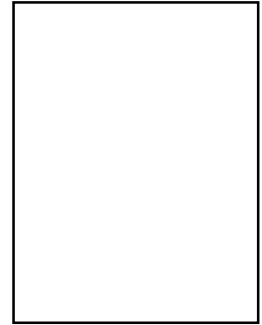
History is replete with examples of men with uncommon vision and the successes they have achieved. Those we now think of as "visionaries" were more than just dreamers, however; they were doers. They communicated their vision clearly, and their activities were always closely connected to the achievement of their visions.

Some of these men we now call heroes, and some we call scoundrels. It depends largely on what their vision entailed. For example, Lincoln is considered one of the greatest American presidents by many, while Hitler is considered one of the most evil men in all of history. However, it is clear that both were visionaries regarding the future of their respective countries, and they were exceptionally successful in achieving their visions.

Were these men able to foresee the future? No, they were able to design the future in the image of their vision. How were they able to convert their views of the future into reality?

- They had a clear view of what that future should be.
- They consistently and clearly communicated their visions.
- They planned according to that view of the future (vision).
- They acted consistently with the vision.

This article addresses a set of techniques directed at formalizing the process of vision development and follow-through that I have developed and used to help a variety of organizations. This is a generalized process which allows its application to many busi-



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Vision Planning is a set of goal development and follow-through activities.

ness planning situations and to system, product, and service design processes, as well as to problems of everyday life. The process is called "Vision Planning," and this article will describe and outline it and illustrate the many areas of this process that relate to a technology forecast.

What is Vision Planning?

Goal Development Activities

In the simplest terms, Vision Planning is a set of goal development and follow-through activities. In the context of a company's planning system, it is the cornerstone on which everything else is based.

As an example of a vision-driven activity, the decision of IBM to develop the System 360 is one of the outstanding examples of following a vision. This decision was made in the early 1960s. The choice to move away from its then current product line was made at a time when that product line was an industry leader. It required the commitment of greater resources than were utilized to develop the atomic bomb. This amount of commitment would have likely resulted in bankruptcy if the project had failed. The basis of the vision was the development of a family of computers that could grow as the using firm grew, and that had standard interfaces so that peripherals could be reused. The result was the design of the now well-known System 360. It was a new direction of computer design, and it set the standard for 20 years. This result was so successful that it produced at least \$100 billion in revenues and made "IBM" synonymous with "computer."

The first step in Vision Planning, then, is the development of a vision of the future. For the leader of a business, this vision specifies, in a form that is concise, clear and actionable, the future for the business. Good vision statements seem easy to recognize because of the clarity and preciseness embodied in them. For example, this may have been IBM's, "Our major source of revenue in the next decade will be based on a new generation of a family of computers that will be designed to allow interchange-

ability so that this family will be the only computer a firm ever needs."

As another example of a vision statement, consider, "Our software will be preeminent in its field by the year 2000 as demonstrated by its use by at least five of the 10 largest companies in the industry." This is clear, concise, and measurable. Whether it is really a good vision statement depends on the difficulty of the task. If four of the five companies targeted are already using the software, then it is a very compliant statement of goals and not a good vision statement. If, at the other end of the spectrum, it is known that the software won't be ready until late 1999, and that competitors will have products in the field in 1996, it is also not a good vision statement because it is unattainable, and no amount of focus and leadership will make it happen.

Vision statements are a balance between what can be done and what is very difficult. They are developed through an iterative process that balances proposed statements against what is currently projected for the future. The details of developing a vision statement will be outlined in the next major section of this article.

Designing the Information Superhighway—A Negative Example

We are currently witnessing the major telcos and cable companies rushing forward with their designs for the information superhighway. This sounds like a vision-driven activity, and perhaps it was at one time. Now, however, it seems clear that it is mostly driven by "How can I get in this market now?" Of course, this is a legitimate strategy, but we should understand the implications and limitations of the choices being made. For the last year or so, HFC (hybrid fiber/coax) has been the design of choice of almost everyone. Of late, we are seeing a pull back from that position (although the cable companies and some telcos are still following this approach), based on a closing availability window. The next choice seems to be the use of ADSL and MPEG2. Coming up quickly, however,

is the full fiber-to-the-curb (or home) system. One company is trying all three.

The indication of the lack of vision in this somewhat willy-nilly switching of major design approaches is in the fact that these three approaches offer vastly differing service capabilities. HFC is limited in capacity, and there are major questions about upstream services. It is also less flexible in terms of custom programming. ADSL/MPEG2 is fundamentally a video only strategy (MPEG doesn't provide bit integrity for data uses). Full fiber-to-the-curb is inherently (compared to the others) high capacity, flexible, and symmetrical.

How can these three vastly different technologies be used almost interchangeably based on the latest cost and availability estimates? The answer is that they cannot, if we are following a vision of the Information Highway with a given set of capabilities. If we were following a vision defined by future services, then the network design would be based on the requirements of that vision. Our efforts would be directed towards solving the cost and availability issues, rather than changing designs with every new cost estimate.

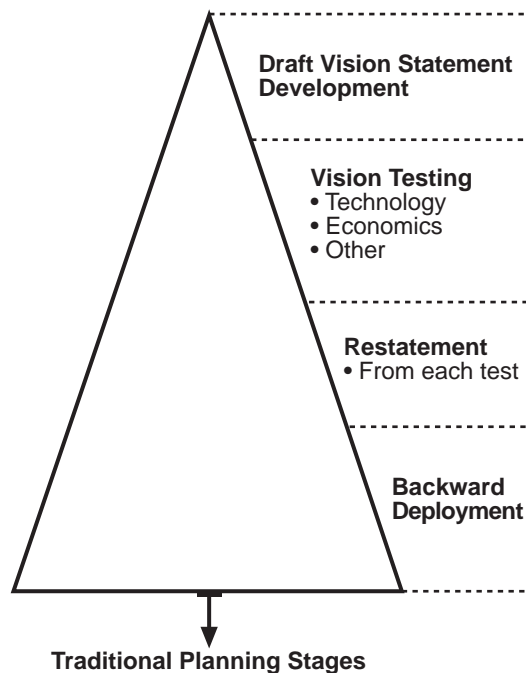
The Vision Planning Process Description

The Vision Planning Pyramid

The process of Vision Planning can easily be likened to a pyramid. It starts at the top of the organization with a very fine point (although the development of the information at the point may have, and should have, involved more than the top of the organization). It moves down the organization with an ever-widening base. The apex is the draft vision statement itself, and the trip down the pyramid is one of increasing detail as the vision is tested, restated, and moved toward realization.

The pyramid is represented in Figure 1. The top of the pyramid is the draft vision statement, and the bottom is the high-level planning for the product, system, or service designs that will achieve the vision. The middle steps are the testing and revision stages designed to assure the feasibility of

Figure 1
The Vision Planning Pyramid



Source: C. R. Holliday

the vision. The rest of this article will be devoted to the development of the details of the Vision Planning process.

The Vision Planning Process

The process begins with one's perception of a desired future based on personal experiences, training, temperament, and all the other attributes that make up the whole person. The inputs of others are then added in a mix that has to be determined by the organization involved, by the nature of the vision, and ultimately by the individual developing the vision.

The most striking difference between Vision Planning and more traditional approaches is that Vision Planning starts with the solution (i.e., the vision) rather than the problem. Thus, Vision Planning tends to start with a very high-level view of the future, rather than risking becoming enamored with—and stuck in—today's problems. The Vision Planning approach encourages

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broad, imaginative thinking at the beginning of the process, and it discourages tunnel vision and entrapment in details at this stage. The traditional approach often burdens the planner with so much detail about the current situation and problems that it is difficult to focus on the future plan.

The oft-quoted story, “it is difficult to concentrate on draining the swamp when the alligators are nipping at your heels,” is very appropriate in comparing Vision Planning with the more traditional approach. The traditional approach is perfectly geared to becoming expert at fighting the alligators. If, however, the company’s goal is to farm the cleared and drained swamp, then planning to kill the alligators (although it may be a necessary step) loses focus on the real objective.

Let’s then look at the steps in developing the basis for a Vision Planning system.

Step 1—Vision Statement

Much has already been said about the development of the vision statement. It has been noted that it needs to be concise, clear, actionable, a “stretch” but “doable,” and it needs to be the clearly-communicated focus of the leader. Many authors have noted the attributes of a good vision statement. A summary of their recommendations would include many of the things that we have already discussed. A good vision statement is:

- Clear.
- Hard to meet.
- Inspiring.
- Stable, but constantly reviewed.
- Focused on the market/customers.
- Constantly communicated.
- Implemented with constant feedback paths.

Given these guidelines and the previous discussion, the reader should have a comfortable feel of what makes a good vision—or at least how to recognize a good one when it is developed. How does one go about actually developing a vision statement?

Developing the Draft Vision Statement

Again, several authors have developed structured approaches to the development of a vision statement. These procedures start with a very free-wheeling brainstorming session in which a draft vision statement is developed. Successive meetings are devoted to a refinement and restatement of the vision, while also adding detail (going down the pyramid). Each step is intended to provide the iterative approach to vision development, as well as bring more information to the vision.

The establishment of an initial vision statement is clearly the most important part of the process. Exactly how it is done is not as important as doing it. The process is designed for rework as each step unfolds, but there must be a starting point.

Step 2—Develop a View of the Future Environment and Test Against the Vision Statement

It is at this stage that the process begins to restrict the vision to what is *feasible* and *realistic*. This will be an activity of refining the vision and of perhaps taking some of the optimism out of the “free thinking” that has gone into the vision development. While this and later steps will be approaches to realism, it is paramount to remember that a vision must be challenging, and the leader must exercise that leadership by continually being the champion of the “stretch.”

Testing Against Technology Projections

The draft vision has to be tested against many things—market projections, anticipated customer needs, suspected competitor actions, and regulatory change. However, one of the most important tests, if not the most important at this early stage, is the test against technology projections and technology plans. Citing this as the first test may be surprising to some, but if a vision is technologically infeasible, then all else is secondary. If the technology required is not evaluated, there is no way to judge the other important yardsticks (cost, market, competitors, etc.).

This earliest portion of the planning process represents the first incursion of technical/design expertise as a basic prerequisite. Technical skills take on a preeminent position in this analysis for several reasons. The first and perhaps the most important is that the above outlined analysis of the vision compared with the technology projections and the technology plans is the one comparison that can in fact identify true “show stoppers” for a draft vision. Most of the other iterative analyses (e.g., market, competitor, etc.) can only yield “soft” information that may still become a reason to change the vision through the exercise of judgment. However, if the technology analysis indicated no likelihood of a needed technology being available any time near the schedule proposed, then that is a very “hard” change indicator.

Another reason that the technology tests are so important at this early stage is the all-pervasiveness of technology in today’s economy. Even if the company under consideration is not itself in a technology-based industry, the extreme penetration of communications and computers in all phases of virtually all businesses dictate that technology is going to be a major factor in any meaningful vision development. In addition, the central role of communications and computing systems in re-engineering efforts has made the pervasiveness of these forms of technology and their importance still greater. Even with totally non-tech industries (examples are hard to develop, but maybe some of the hand craft industries are close), distribution channels, promotion, billing, service access, etc. are all likely to be highly dependent on technology and technology developments.

Other Tests

In addition to the technology tests, it is necessary to also test the vision against other appropriate yardsticks. Which are these? That largely depends on the nature of the industry and vision in question. Certainly, some kind of economic measurement needs to be made. This implies that some kind of costs versus income estimates must be made

and an evaluation made as to the payoff. It is likely that anything more than the broadest measures at this point are a waste of time, distracting to the real intent of the process, and possibly misleading.

Other areas that should be used for tests depend strongly on the industry in question. Some possibilities are potential regulatory changes or responses for regulated business, possible legal changes, possible new market entrants, possible competitor actions and/or responses, etc. Each of these should be reviewed as well as other yardsticks important to a specific business.

Step 3—Restatement

After each of these reviews, appropriate modifications should be made to the vision. As noted before, while this is the time to bring the vision into the realm of feasibility, it is important that the leader stresses the need to have a vision that will be difficult. The perfect vision would be one that is just marginally feasible.

Step 4—Backward Deployment

This rather strange sounding term is the real “payoff” stage of Vision Planning. It could be called migration plan development or high-level implementation planning, but the term “backward deployment” is much more descriptive of the activity. This is the process of starting with the future vision and working backward in time to today’s reality. In doing so, a road map—a high-level implementation plan—is prepared to guide later, more detailed strategic and implementation planning. It is at this stage that a list of direct guides for the detailed processes will be developed.

ISDN Example

ISDN stands as an outstanding example of the lack of this kind of planning. ISDN was indeed a visionary service concept when it was developed some 15 years ago. Just the fact that it is currently being “re-discovered” as the answer to offices at home and to the need for broader bandwidth access to the Internet attests to the visionary nature of ISDN. Why, though, has it been

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such a bust for so long? Certainly, part of the reason is that the industry and the telcos failed to do the kind of planning that is being described here as backward deployment. Even though ISDN was based on international standards, it was developed in such a way that there was no compatibility between services provided by different brands of telco central office switches. The switches would not work together. The ISDN phones that would work on one switching system would not work on another brand. In addition, the telcos failed to plan for the commercial introduction of ISDN. This failure could be seen in the fact that even though the switches were installed, the telcos lacked the ability to take an order for an ISDN line, or to fill such an order. This was due to the failure to carefully identify all of the steps necessary to actually support ISDN service provisioning.

Backward deployment starts from a vision of the future and provides a framework for developing those steps necessary to get to that future without the nightmares that can take years to straighten out as they have with ISDN.

The Payoff Stage

Backward deployment is called the payoff stage of Vision Planning because the goal of any planning activity must ultimately be to determine what actions should be taken today to reach tomorrow's goals. That is what happens in this stage. The genius of Vision Planning is that it starts with a desired future, rather than merely projecting the present forward. One is thus able to "invent the future."

The approach to backward deployment is to visualize the future desired state and to work backward in time in large increments, determining what each of the preceding major, logical step(s) should be. This activity results in the high-level roadmap.

The real skill in this process is tying the roadmap to the present situation (e.g., the "legacy systems") in the most graceful manner. This tie-in will require the assistance of those highly skilled in today's

operations. It is here that the next required design—the "bridge design"—will be outlined. In addition to the roadmap, this process should produce lists of characteristics of the steps at major points along the way. These lists will provide an ongoing measurement basis as the vision is pursued.

A primary purpose of this stage of Vision Planning is to develop solid guidelines and measurements for the following planning and implementation stages. The roadmap and other outputs should be taken and directly used in the next planning stage. It is important that each stage does not "re-invent the wheel," but rather depends on and uses material previously developed. If this "inheritance" is not enforced, the final product or plans may have no relation to the vision.

Summary

This then is the end of the description of the Vision Planning process. However, the process itself never ends. It is a continuing part of the overall planning process. The activities outlined here should be performed every year to assure that the vision stays "fresh" in terms of ever-changing market and technology characteristics.

Vision Planning is the process that allows you to design your own future, whether you are considering your personal future, your group's, your department's, or your company's. Understanding the vision of the future is the key to keeping on target so that the result will be accepted and implemented successfully.

The discrete steps that lead through the process of setting a vision have been presented, and the importance of the contributions of technical forecasts and expertise has been emphasized. The choice of doing effective planning is one of deciding either to be a designer of the future or to be a part of someone else's (vendor, competitor, etc.) design. The Vision Planning process will equip those who choose the path of leadership with all the tools needed to successfully pursue that election. nto