



STRATEGIC NAVIGATION

by H. William Dettmer

INTRODUCTION

People use the word “strategy” to connote a wide variety of meanings. **(Figure 1)** The word’s origin is military, dating back to Sun Tzu in the fifth century BC. But even in modern times, it’s most often associated with military leaders such as Clausewitz, Moltke, and Liddell Hart. Nearly all military definitions of strategy involve objectives, winning, application of resources, and execution of policy.

The commercial business community tends to see strategy almost exclusively in terms of marketing or finance. Michael Porter’s famous “low-cost leader versus differentiation” concept was the basis of his landmark book, *Competitive Advantage* [1], the virtual bible of business schools for many years.

But it would be a mistake to relate the concept of strategy to any particular type of organization. The real relationship is *between strategy and systems*. What this means will become clear momentarily.

Historically, strategy has had a hierarchical position. Militarily, tactics are the purview of small units. When smaller units are combined to engage in coordinated, combined efforts, these are usually referred to as operations. Operations are usually shorter or more medium-term components contributing to the attainment of broader, more long-term strategy. Strategies are typically engaged in by large, unified commands. And ultimately, nations pursue grand strategies.

This discussion will introduce you to a longer, systems view of strategy and what it is, followed by an explanation of the relationship of something called the OODA loop with a set of tools called the Logical Thinking Process to the creation of strategy. The combination of these two constitutes “the Constraint Management Model.” Finally, we’ll wrap up with an actual example of its use.

SYSTEMS THINKING AND STRATEGY

In our business systems, we typically think in terms of *functions*, such as these here, rather than in terms of *whole systems*. Yet our organizations succeed or fail as integrated, holistic systems, not as a collection of independent processes.

“What’s your strategy for finding a job?”

“What’s our strategy for getting this project done on time?”

“What’s your strategy for getting your spouse to agree to our golf trip to Las Vegas?”

“What’s the strategy for turning around the slumping economy?”

“What’s our strategy for winning the game next Sunday?”

“What strategy should we use to introduce this new product to the market?”

“What’s your strategy for getting Nadine to go out on a date with you?”

Figure 1. What Is Strategy?

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

Moreover, we think analytically—we drill down to successively more detailed levels. We divide our complex systems into their component parts, and we look for compartmented solutions.

But as we all know, our organizations are actually *integrated systems*. **Figure 2** is a fairly simple system. The components are *interconnected*, and to varying degrees they *depend upon one another*. The system’s components combine in a *synergetic* way and interact with their external environment to produce a result that any component alone could never achieve. Real systems, however, are much more complicated. (**Figure 3**)

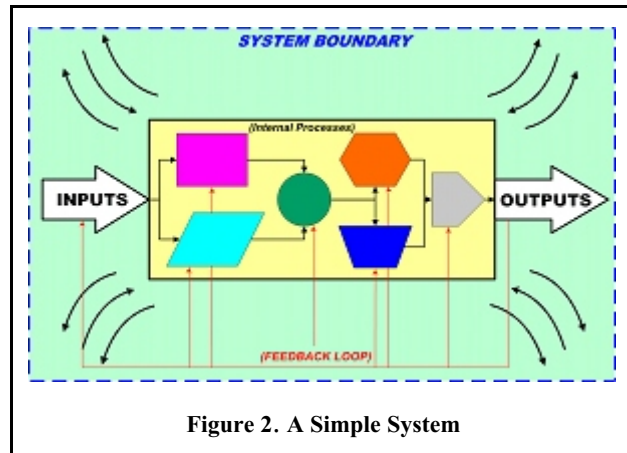


Figure 2. A Simple System

Almost any system having humans as a major component might be considered self-aware— as differentiated from biological or weather systems, for example. We might divide self-aware systems into *human, economic, and political*, each group having its own sub-types, as shown in **Figure 4**.

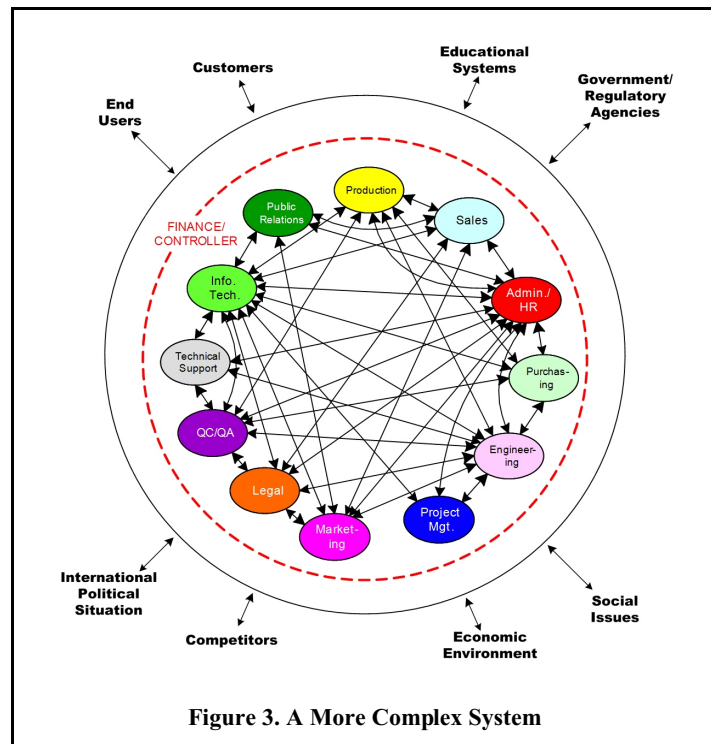


Figure 3. A More Complex System

Each of these sub-types could be populated by hundreds, or even thousands of discrete systems. But what each of them has in common with all the others is *multiple components* working together in some *coordinated* way to achieve a *common purpose*.

It is actually because organizations *are* systems that the compartmented solutions we typically generate using the *analytical approach* pose a grave risk of subordinating—or *suboptimizing*—the benefit of the larger system to the advantage of a component. As a way of testing for the analytical-compartmented approach, how many times have you

Human	Economic	Political
Personal	Commercial	Governments
Family	Economies	Administrative
Society	▪ Local	Political parties
Cultural	▪ State	Revolutionary movements
Educational	▪ National	Information
Charitable	▪ Transnational	Security (Law enforcement; military)
Social	Information	
Knowledge	Technical	

Figure 4. Self-Aware Systems

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

have seen—or participated in—a “brainstorming” or problem-solving session that was *confined to one department or process*?

It’s important to keep in mind, too, that any system *interacts with the environment* in which it functions. A manufacturing company (a system) interacts with the local community in which it resides, the transportation network that serves the company, the power company that provides it energy, the banks that handle its money, the schools that educate its work force, and of course the local society.

The System Goal and Strategy

The overriding characteristic of any system is its *goal*. Every system, or organization has one, whether they’ve consciously articulated it or not. The goal is the *purpose for which the organization was created*. Such purposes are usually long-term, and often broad in scope.

Attaining a system’s goal is a lot like a journey to a destination. We’re trying to get from where we are—which is presumably somewhere other than where our goal lies—to where we want to be (the condition of goal attainment). But an organization’s journey is actually through *time*, not through space. There may not be any change in location, but there is certainly some change in condition. And that change typically involves *policies, initiatives and actions* of some kind, because—let’s face it—“If you always do what you’ve always done, you’ll always get what you’ve always gotten.” So, it might be said that a robust pursuit of an organization’s goal is ultimately an exercise in *creative destruction*. But whether through time or through space, the journey is not always smooth.

So, we could define strategy as *the way systems or individuals choose to close the gap between a current condition and some desired future state*. For an organization, that might be, “How do we go about doubling our profitability in the next two years?” For an individual, it might be, “How do I get a date with Nadine Smith, or Tom Harrison?” ... a little short-sighted, perhaps, but some goals certainly are.

The important distinction to make here is *the movement from where we are*—losing money, or dateless—to *where we want to be*—profitable, or “accompanied!” But that journey between where we are and where we want to be is often neither direct nor quick. Sometimes, like a ship, we can be blown off course. This situation requires the skill to detect the deviation from course, and the will to make the corrections required to resume a direct path toward the destination. And it’s not entirely beyond that realm of possibility that in mid-journey, the destination—the *goal*—might change. When that happens, the whole strategy—the *route and means* to destination—must be quickly re-planned, and an immediate course change undertaken.¹ But whether it’s an organizational journey or a real one, the uncertainty of the real world forces us to expeditiously adjust and press on.

¹I’ve been speaking in nautical navigation terms for a reason—I find it a good metaphor for systems “navigating” their way to their goals.

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

In developing an organization’s strategy, the environment is an indispensable consideration. Every system operates in one, and it has four key dimensions: *economic, social, political, and technical*. These environmental dimensions define and delimit the resources and range of options we can employ in executing our strategy.

SYSTEM MANAGEMENT TOOLS

This brings us to the challenge that all our organizations face: *Our systems are expansive and complex, but our management tools are discrete and often stratified*. While systems are subject to complex interactions and wide variability, the tools we use to manage them are limited in computational power and demand that we simplify reality—usually through assumptions that are promptly ignored—before we can even address problems.

To demonstrate this simplification here’s a little exercise. Think of an organization you’ve been part of—can you cite a short-hand metric or measurement that has successfully reduced the vagaries of a complex operation to a single figure? Most such efforts fall woefully short, yet we use such short-hand metrics anyway. That’s what I mean by “rounding off the sharp corners of reality.”

Moreover, there is always a risk with simplification—it’s a sword that cuts two ways. It may be required to absorb the “big picture,” to be able to hold it all in your head, but it carries with it two key dangers: Missing some key assumptions and ignoring the critical few in favor of the trivial many—in other words, “rearranging the deck chairs on the *Titanic*.”

So, in view of everything we’ve considered so far about systems, let’s look at a concept and a set of tools that can help us effectively manage our systems in a dynamic environment.

THE OODA LOOP

The concept is called the OODA (OOH-dah) loop. We’ll get to the tools shortly. The OODA loop is predicated on the idea that *speed is good, faster is better*, and if the system exists in a competitive environment, then executing a cycle of the OODA loop faster than a competitor is essential to success.

The OODA loop was conceived by John Boyd, a U.S. Air Force colonel who is probably best known as a proponent of *maneuver warfare*. But Boyd’s earlier reputation as a “leading-edge” thinker originated with his development in the early 1960s of the energy-maneuverability theory, which became the basis of all air-to-air combat training for both the Air Force and the Navy.

Using this energy-maneuverability theory as a basis, Boyd heavily influenced the design of the two most successful jet fighters in history—the F15 Eagle and the F16 Fighting Falcon. Late in his career (and life), Boyd became an avid promoter of maneuver warfare, which emphasizes deception, agility, speed, and fast changes in direction, rather than size and superior strength.

Perhaps the most visible expression of Boyd’s maneuver philosophy and the OODA loop is the famous “left hook” executed by the Army’s 7th and 18th Corps in Operation *Desert Storm* (1991). [2]

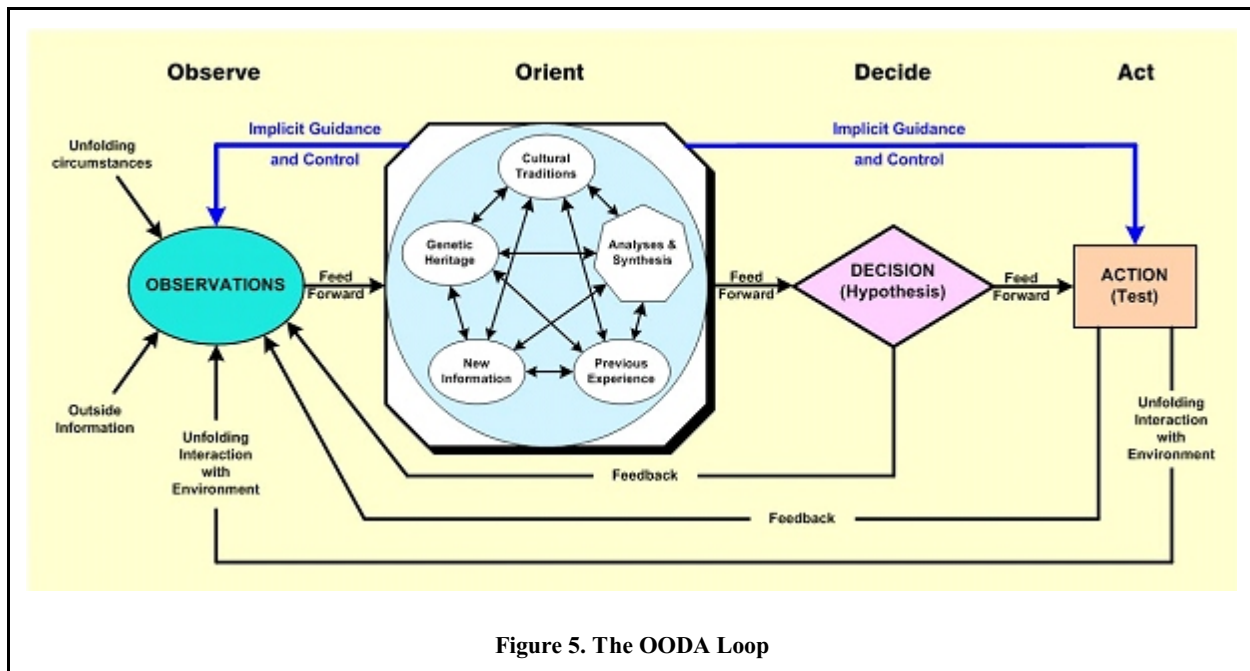


Figure 5. The OODA Loop

This is the OODA loop. (**Figure 5**) The word is an acronym that stands for “observe-orient-decide” and “act.” It’s a true feedback loop, because the outcome of the ACT stage is a new condition of reality that can be OBSERVED, initiating a second pass through the four stages. Let’s examine these stages in a little more detail.

Picture yourself in your chosen system, at a particular moment in time. Now set yourself beside, or above the system, as if you were an outsider looking in. *Observe* the operation of the system and its interaction with its environment, or with unfolding circumstances. Add to these external factors some additional outside information, and we have what we might characterize as “observations.” These might be related bits of information, but at this point they appear somewhat disconnected or discrete.

But they “feed forward” into the second stage of the OODA loop. The output of the OBSERVE step becomes the input for the second, or ORIENT, stage. This is the most important stage in the OODA loop. The observations from the first stage are *synthesized* with knowledge already resident in our brains. This knowledge includes:

- Cultural traditions
- Genetic heritage
- Previous experiences, and
- Other new information

Collectively, this existing knowledge could be characterized as our “world view” —our *concept for how the world works*...and how it must work.

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

But the introduction of new observations from stage one prompts us to synthesize or modify our world view to account for the new information. This new *orientation* causes us to re-evaluate reality and assess the gaps or mismatches between what we actually see and what we expected to see. The determination or quantification of those mismatches is the output of the ORIENT stage.

Once we’ve identified a gap, or mismatch, between reality and expectations, we have to *decide what to do about it*. That may be a decision to do nothing, in which case all we have is a revised world view that accommodates the new observations. But if the gap represents an *undesirable deviation*—as it may for many business systems—the very existence of the gap prompts us to do something about the gap. However, before we can do anything about the gap, we have to decide what that action should be. This, then, is the third stage of the OODA loop: DECIDE what to do about the mismatch. After a decision is finalized, all that remains is to ACT on it—the fourth and final stage in the first pass through the OODA loop.

Any action can be expected to provide direct new information on its execution. This information feeds back into the OBSERVE stage. But we can also expect any action to be affected by a dynamically changing environment as well, so the effects of an action may or may not be exactly as we expect. Have you ever heard the phrase “overcome by events”? This is an expression of the effects of a rapidly changing environment on our best-laid plans. Either way, action begets new observations. So, the outcome of the ACT stage initiates the cycle all over again, although each successive time the cycle begins there are new observations to be made.

Notice the blue lines at the top of the diagram (**Figure 5**), labeled “Implicit guidance and control.” Boyd maintained that with experience, one gains a more complete understanding of one’s environment. Consequently, each cycle occurs faster and faster, until at some point there is *no need to consciously DECIDE*—one orients oneself, and the required action becomes implicit, or obvious.

Likewise, a radically unexpected synthesis in the ORIENT step may implicitly send one back to make more, or different observations.

Boyd was a fan of Miyamoto Musashi, perhaps the greatest samurai warrior who ever lived. In 1645, Musashi wrote a classic book about single combat with swords called *A Book of Five Rings*. [3] In that book, Musashi said, “Practice is the only way that you will ever come to understand what the Way of the warrior is about... Words can only bring you to the foot of the path... Practice until sword becomes no-sword, until intention becomes no-intention.” In other words, become so familiar with your weapon that it is *no longer an implement in your hand, but rather an extension of your arm*. Practice until you don’t have to think about what you’re doing, you *just see and react*—muscle memory takes over. This is what implicit guidance and control means.

Though he didn’t articulate the OODA loop as a fully developed concept until after his retirement from the Air Force in the 1970s, Boyd likely formulated the basic idea during his duty as a fighter weapons instructor in the 1950s. Air-to-air combat engagements are very intense, short in duration, and highly motivating—life or death hangs in the balance.

Boyd undoubtedly cycled through the OODA loop implicitly in mere seconds during such engagements. In fact, he had a reputation as “40-second Boyd,” because of a standing offer to any

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

other pilot—he would beat anyone in an aerial combat engagement within 40 seconds, or he’d pay them \$40. In six years, nobody ever collected the \$40.

The concept of the OODA loop is eminently transferable to other environments besides aerial combat. It’s based on the assumption that *speed is more important than mass*.

Boyd intended the OODA loop to be pro-active, rather than reactive. The idea is to control the situation by staying at least one cycle ahead of a competitor. The objective is to *create mismatches* to which the opponent has to react.

The OODA Loop: A Real-World Example

Here’s a current, real-world example: The University of Oregon football team. In January 2011, Oregon played Auburn University for the national championship of college football. Oregon’s head coach has installed a revolutionary offense, based almost entirely on speed:

- Fast players, rather than just large ones,
- Spreading the defense all over the field, and
- Executing plays faster than the defense can regroup.

College football rules mandate 25 seconds between plays, timed from when the referee marks the ball ready for play until the team with the ball must initiate the next play. Oregon, however, aims for *15 seconds from the time the previous play is whistled dead until the subsequent play is commenced*. Not only does this allow the defense no time to catch its breath from the previous play, it affords no time for substitutions, and almost no time for coaches to signal in defensive plays.

Oregon often starts the next play *before the defense is even lined up*. This is the epitome of fast OODA cycles, and the effect on other teams’ defenses is devastating. By the fourth quarter, opponents’ defenses are totally exhausted. They can’t keep up with Oregon’s offense. And Oregon averaged 50 points a game over its 12-game season in 2010.

It’s worth noting that while Oregon lost the national championship game against Auburn on a field goal in the last minute of regulation time, three errors by individual Oregon players—two dropped sure touchdown passes and a fumble inside the Auburn two-yard line—cost Oregon three touchdowns, otherwise the final score would have been 40 to 21 in Oregon’s favor. Such execution errors are part of what Clausewitz referred to as “the fog of war.” Though they may be anticipated in general, it may not be possible in all cases to compensate for them.

Since Boyd introduced the OODA loop in the 1970s, the concept has migrated both horizontally and vertically. It’s moved horizontally, out of the military environment alone, and into commercial business. And it’s migrated from the tactical level up through the operational level to the strategic level.

If you stop to think about it, the OODA loop represents the *essence of a true learning organization*—immediate application of new understanding in the subsequent cycle.

THE CONSTRAINT MANAGEMENT MODEL

So, how do we translate the OODA loop to strategy in business? Let’s consider the *Constraint Management Model (CMM) for Strategy Development and Deployment*. (Figure 6) It serves as a bridge between the tactical and the strategic. [4]

The Constraint Management Model is based on the assumption that the gaps, or mismatches, identified in the OODA loop are manifestations of *constraints* to better system performance. The Constraint Management Model itself is a seven-step process that embodies the OODA loop.

Step-1: Define the Paradigm

The first step in the Constraint Management Model is to *define the paradigm*. This is another way of asking, “What is our system’s goal, what are the critical success factors we must satisfy to achieve it, and what’s the nature of the environment we operate in?”

The first action we take under this step is to articulate our ultimate goal: *what are we in business to achieve?* Once a consensus is reached on the answer to that question, we ask, “What are the few *critical terminal outcomes*—success factors—that define successful goal attainment?” Normally, there are no more than 3 to 5 of these. After the goal and critical success factors are established, we gather information. We *observe* our external environment and our internal operations, and we collect data and information about them. This is the OBSERVE stage of the OODA loop.

Even before we consciously move to the ORIENT stage, notice that our existing world view—established through earlier orientation—*shapes what we choose to look for, what we consider important*. We see our world through our own unique set of rose-colored glasses.

The output of this first step is a graphical representation (Figure 7) of a structured hierarchy:

- The goal is at the top
- Immediately below are the critical success factors that lead to it
- Below the critical success factors are the *supporting necessary conditions* (usually functional in nature) that deliver the critical success factors.

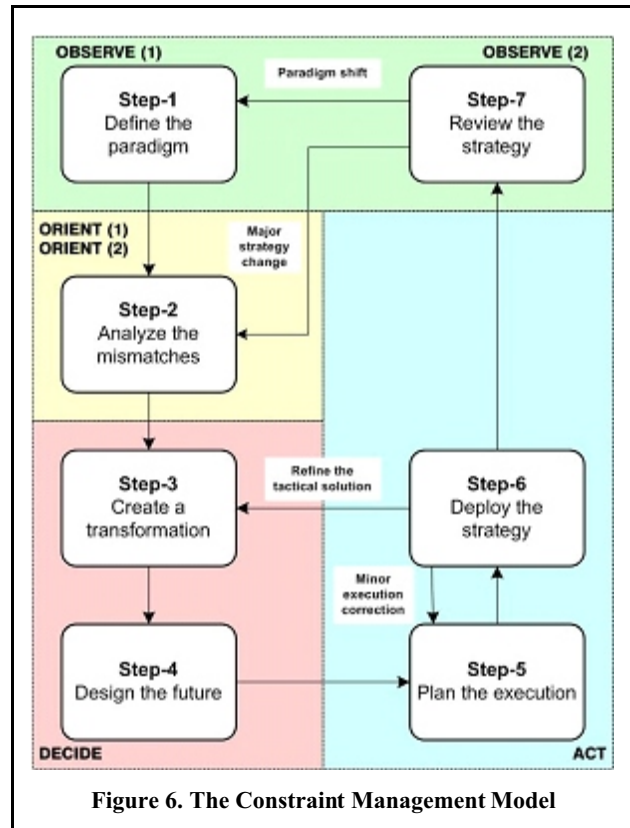


Figure 6. The Constraint Management Model

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

This graphical representation is called an *Intermediate Objectives (IO) Map*.² It constitutes the information—the benchmark—required to commence a gap analysis. The Intermediate Objectives Map is the first, and *most critical* part of the logical thinking process that forms the basis of our emerging strategy. It establishes the objective standard of “desirability”—the *ideal final result*—against which actual performance is evaluated.

Step-2: Analyze the Mismatches

The second step is to analyze the mismatches. This is the step where we take what we see happening in reality and compare it with what we already know—including the goal and critical success factors determined in Step-1. This corresponds to the ORIENT stage of the OODA loop.

The key element here in Step-2 is our *mental model of the world* and our organization’s place in it. The “shade of glasses” through which we view what’s going on around us “colors” our understanding of the way things are and the way we perceive that things have to be.

New observations and data from Step-1 force us into a comparison: “Is reality shaping up the way we expect it to, or has life thrown us a curve ball?” To the extent that the answer is the latter—and to some degree observations will always deviate from expectations—we are forced to revise our orientation, or world view, to accommodate reality.

This is not unlike what effective research scientists do when they find some new data that doesn’t conform to their original hypotheses—they adjust their hypotheses. But in our case, besides modifying our world view, the deviation or gap between expectations and reality motivates us to consider ways to close the gap.

Our output from Step-2 is a Current Reality Tree—a graphical cause-effect analysis that displays our observed mismatches at the top and their systemic root causes at the bottom. (**Figure 8**) Typically, these critical root causes are the *system’s constraints*, which is how the Constraint Management Model gets its name.

This cause-effect picture of reality may be 5-10 layers deep—perhaps even more—depending on the complexity of the system.

Steps 3 and 4: Create a Transformation and Design the Future

The third and fourth steps of the Constraint Management Model require that we create a

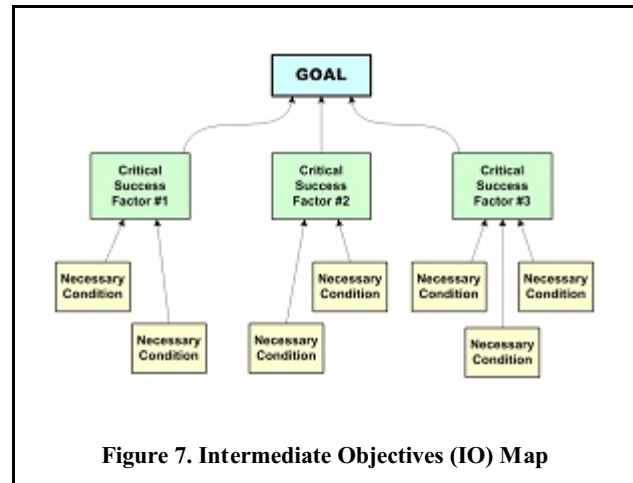


Figure 7. Intermediate Objectives (IO) Map

²The Intermediate Objectives Map might also be called a “goal tree,” since it depicts the system’s goal and the few terminal outcomes required to achieve it.

transformation and design the future. These two steps correspond to the DECIDE stage of the OODA loop.

Step 3 is a creative process—“brainstorming” is often associated with this step. Initiatives are created to close the gaps identified in Step-2. Often, conflicts must be resolved as part of this problem-solving effort.

Step-4, Designing the Future, involves creating a visual representation of the future—the desired configuration. This model of the future provides *logical verification* that the proposed solutions will actually deliver the desired results—i.e., close the gaps—and will not invoke the “law of unintended consequences” in the process.

As with the mismatch analysis step, the output of Steps 3 and 4 is another graphical cause-effect analysis—a Future Reality Tree. (Figure 9) This “roadmap to the future” has the proposed changes to reality at the bottom and the expected new outcomes at the top, connected in between by an unbroken, verifiable chain of cause-and-effect. This is called a Future Reality Tree, because it reflects a state of reality that doesn’t exist yet—we must make it happen.

Step-5: Plan the Execution

The fifth step in the Constraint Management Model is to plan the execution of the changes identified in Step 3 and verified in Step 4. This is the first half of the OODA loop’s ACT stage.

Planning the execution requires breaking out the specific detailed tasks and activities required to implement the future roadmap. Execution may involve overcoming obstacles, which must also be identified as part of the execution plan. Ultimately, these details can—and in many cases should—be converted into a formal project:

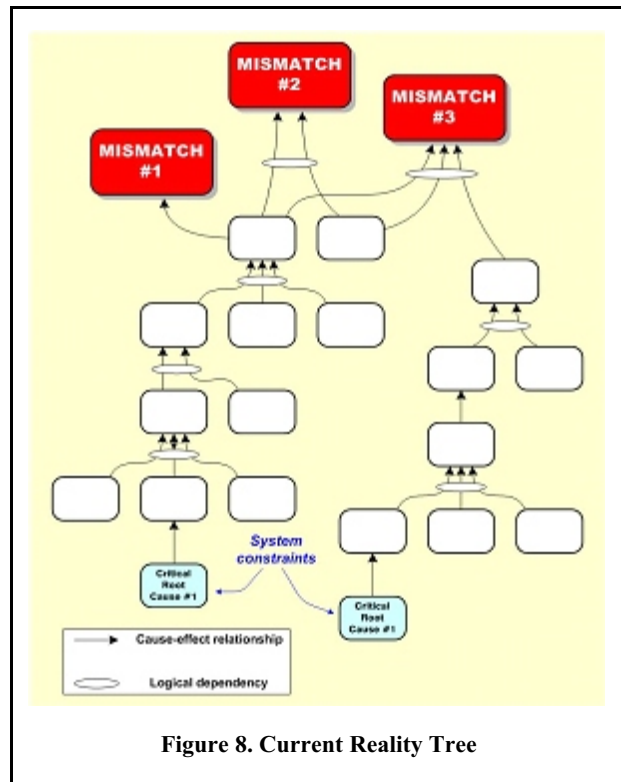


Figure 8. Current Reality Tree

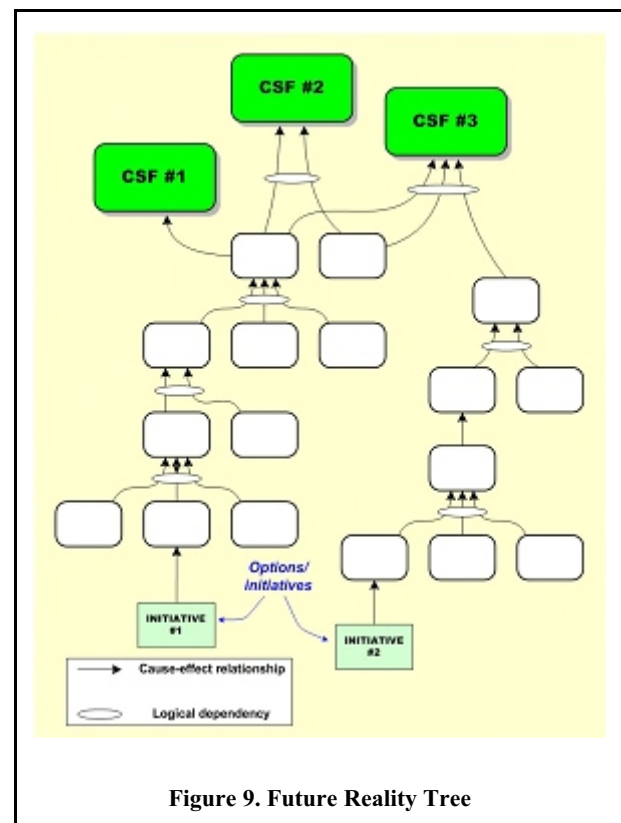


Figure 9. Future Reality Tree

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

- A work breakdown structure
- A graphical activity network
- A defined delivery schedule, performance standard, and required resources, and
- Accountability—who is responsible for getting the job done.

The output of Step-5 is a completed project plan for the deployment of the strategy, complete with assigned responsibilities, accountabilities, and success metrics.

Step-6: Deploy the Strategy

The second half of the ACT stage of the OODA loop is Step-6 in the Constraint Management Model—deploying the strategy. This is exclusively a *function of leadership*, and leadership is not the same as “management.” Somebody has to be the captain of the ship, to monitor progress and apply course corrections as required.

Unfortunately, leadership can’t be taught—it can only be learned. And while the term is often cavalierly used, in reality “many are called, but few are chosen.”

Step-7: Review the Strategy

By the seventh step, we have completed our first pass through the OODA loop and are commencing the second pass. This step, reviewing the strategy, prompts us to evaluate, at periodic intervals, how strategy deployment is going—again, how frequently to review progress is a leadership decision. But whatever the interval, senior executives should use metrics based on the system goal and critical success factors to decide:

- Is the strategy delivering the results we expect, and
- If not, what adjustments to the strategy are required?

In rare cases, such a review may reveal the need for a major change in strategy, or even a complete redefinition of the organization’s paradigm. Typically, this happens only with some tectonic or catastrophic shift in the environment—for example, the terrorist attacks of September 11, 2001.

Benefits of the Constraint Management Model

As previously discussed a decisive competitive advantage results if an organization is able to cycle through the OODA loop faster than its competitors. This means completing two or more cycles in the same time that they complete only one. The result of “lapping” the competition is that it sows surprise and confusion among the organization’s adversaries. Boyd referred to these as “fast transients.” The objective, he said, is to induce a “What the heck??!!” reaction in the opponent. Ultimately, being several cycles faster drives opponents to total collapse—witness the effect on the Iraqi army during Operation *Desert Storm* in 1991.

A word of caution is in order, however, about Steps-6 and 7 of the Constraint Management Model: *there is no substitute for effective leadership in strategy deployment, review, and embracing*

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

a change in direction when one is needed. The greatest strategy in the world will absolutely fail without the will of leadership to see it through and make the difficult decisions along the way, as we will see below.

A key benefit of the Constraint Management Model is that the *process itself reinforces fast OODA loop cycles*. With the right system knowledge available, in many cases the first five steps can be completed in *four to eight weeks*, and the seventh step can be done in about a week.

Actual strategy deployment may take a little longer, depending on the actual activities and operations involved.

A Real-World Example: Ocean Portal Technology

Now it's time to see the Constraint Management Model in action in a real-world situation: Ocean Portal Technology. The details and thinking process logic trees for this case can be found at:

<http://www.goalsys.com/OceanPortal.htm>

“Ocean Portal” is a pseudonym for a real company that has been around since 1981. It manufactures important computer peripheral devices, and it has captured 40 percent of the world market in its chosen product lines. Competitors in Japan, France, South Korea and the United States split the other 60 percent of the world market.

The company sells to both original equipment manufacturers (OEM) and retail end users. It's OEM customers include Hewlett-Packard, Dell, Sun Microsystems, IBM, and EMC². Ocean Portal facilities are located around the world.

In 2006, Ocean Portal, in reaction to inroads made in their market share by competitors, decided that they had to do something different. They chose their supply chain, and their responsiveness to the OEMs, as the target of an attempt to achieve competitive advantage.

So, they decided to redesign the distribution segment of their supply chain for their Silicon Valley facility. This particular facility supplied Hewlett-Packard, and it typically experienced the highest demand among the 32 OEM locations that Ocean Portal supported.

The first thing that Ocean Portal did was to articulate the company's goal and critical success factors into an Intermediate Objectives Map. Recognizing that they were working somewhat lower in the hierarchy than the top level IO Map of the whole corporation, the task force created an IO Map for the supply chain alone. Their goal was to *maximize return on investment*. To achieve this, they had to *ensure delivery availability* to the OEMs while simultaneously *maximizing inventory turns*. These were their critical success factors.

Next, the task force analyzed the mismatches. The Current Reality Tree they constructed reflected their assessment of the critical root causes behind those mismatches—which are the undesirable effects in the Current Reality Tree.

They identified three critical root causes:

- Ocean Portal *manufactured products to forecast*—religiously.

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

- They prioritized *cost reductions*—in all areas—*over everything else*. (They prided themselves on being a “lean” organization.)
- Their supply chain was utterly *unable to respond* rapidly to precipitous drops in demand, which drove Ocean Portal’s unsold inventory through the roof.

The task force invested substantial effort in resolving the conflicts associated with changing two of those critical root causes. Then they laid out a Future Reality Tree that logically demonstrated the efficacy of the changes that they expected to take them to their desired results.

The task force had the authority to make these policy changes in the prototype, and they did so, with these results:

- They *decreased the total OEM inventory by 75 percent*.
- Their inventory-pull ratio (a unique Ocean Portal metric comparable to the inverse of inventory turns) dropped *from 6 to 1.5*—a four-fold improvement.
- Their stockouts, which had previously been severely hurting their reputation with the OEMs, went *from 14 per week to ZERO*, despite unpredictable changes in demand.

So, Ocean Portal was on the way to great competitive advantage, right? Not so fast—a funny thing happened on the way to a robust supply chain. The Ocean Portal corporate leaders could not divorce themselves from their cherished mental model of the world. They couldn’t bring themselves to accept the evidence of their own eyes and give up their cost-reduction obsession. So, despite the incontrovertible evidence of the prototype project. Cost-cutting remained the order of the day.

They failed to extend the prototype throughout the company’s supply chain. As a result, they couldn’t capitalize on the initial results achieved in the prototype. They opted not to promote the concept of “assured availability.” (Which, in truth, they never could have achieved anyway, because they refused to put the new policies in place required to deliver it.)

As a result, Ocean Portal continued its downward slide and loss of market share to its competitors. In 2008, the Chief Executive Officer and Chief Operating Officer were replaced. (But they did keep the Chief Financial Officer who wouldn’t tolerate any discussion of eliminating the obsession with cost-cutting.)

SUMMARY AND CONCLUSION

So, to summarize, it’s a smart idea to avoid tactical changes without fully understanding what impact they will have on the whole system and the organization’s strategy. It’s also a smart idea to apply a “strategic navigation” concept based on systems thinking and the Constraint Management Model for Strategy Development and Deployment.

In doing so, we establish the foundation of a true learning organization, and it looks something like **Figure 10**. Read the diagram this way:

If I have sufficient understanding of my system, or access to it, and I have *authority to change* my system, and I have the *desire to improve* my system, then I am empowered to improve my

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

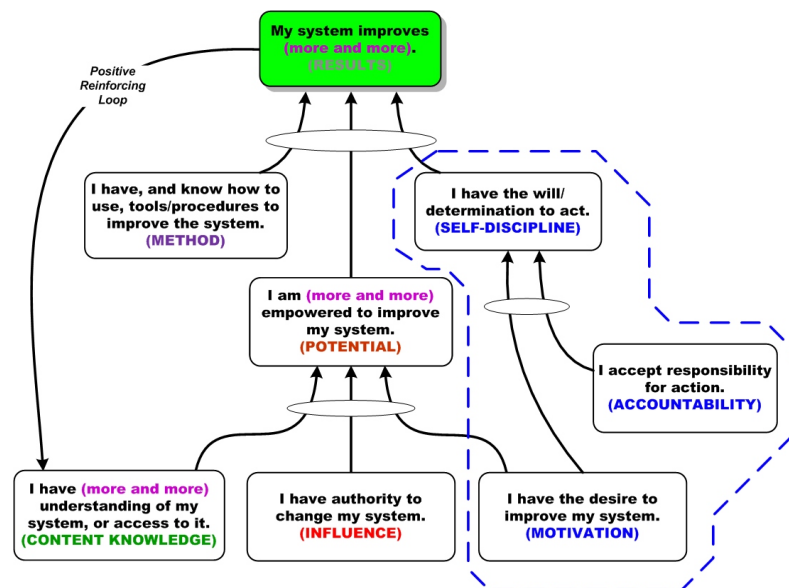


Figure 10. System Improvement Tree

system. We could summarize this by saying that *content*, or *system, knowledge, influence*, and *motivation* combine to produce *potential*.

Continuing, if I accept responsibility for action, and I have the *desire to improve* my system, then I have the *will or determination to act*. If I have, and know how to use, *tools and procedures* to improve the system, and if I am empowered to improve my system, and if I have the will or determination to act, then my *system improves*. Another way to say this is that motivation and accountability give us self-discipline...and what is all of this, but fundamentals of leadership?

And if my system improves, then I have *more-and-more knowledge* about my system, I'm *more-and-more empowered*, and ultimately *my system improves more-and-more*. This continuous feedback loop is the essence of a learning organization.

ENDNOTES:

1. Porter, Michael. *Competitive Advantage*. NY: The Free Press, 1985.
2. Coram, Robert C. *Boyd: The Fighter Pilot Who Changed the Art of War*. NY: Little, Brown & Co., 2002.
3. Miyamoto, Musashi. *A Book of Five Rings*.
4. Dettmer, H. William. *Strategic Navigation: A Systems Approach to Business Strategy*. Milwaukee, WI: ASQ Quality Press, 2003.

BIBLIOGRAPHY

Coram, Robert C. *Boyd: The Fighter Pilot Who Changed the Art of War*. NY: Little, Brown & Co., 2002.

Goal Systems International

“CONSTRUCTING AND COMMUNICATING COMMON SENSE™”

Dettmer, H. William. *Strategic Navigation: A Systems Approach to Business Strategy*. Milwaukee, WI: ASQ Quality Press, 2003.

Hammond, Grant T. *The Mind of War: John Boyd and American Security*. Washington, D.C.: Smithsonian Institution Press, 2001.

Miyamoto, Musashi. *The Book of Five Rings*. [Translated by Thomas Cleary]. Boston, MA: Shambhala Publications, 1993.

Osinga, Franz P.B. *Science, Strategy, and War: The Strategic Theory of John Boyd*. NY: Routledge, 2007.

Porter, Michael. *Competitive Advantage*. NY: The Free Press, 1985.

Richards, Chet. *Certain to Win*. Xlibris, 2004.

Senge, Peter M. *The Fifth Discipline: The Art and Practice of the Learning Organization*. NY: Doubleday, 1990.