

Institute for Enterprise Excellence



Bringing Purpose To Life

Side (by Side) Management

July 2017

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Executive Summary:

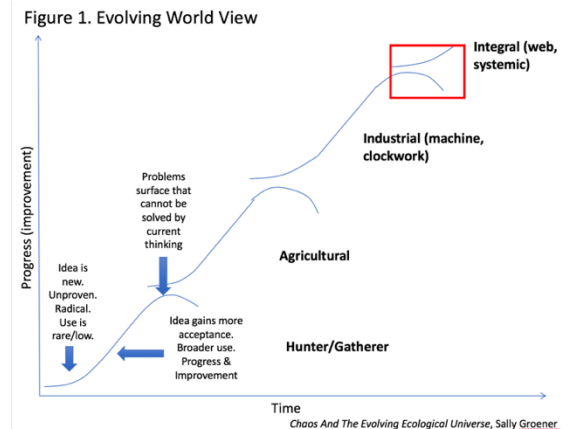
Our first White Paper “Foundations for Transformation: Linking Purpose, People and Process”¹ described the common patterns that we have observed as executives and managers have attempted to create a sustainable culture of continuous improvement in their organization. Many find themselves trapped in a cycle of “program of the month” approaches that never seem to produce the sustainable transformation of management that is necessary. However, there are some who desire to break away from this pattern, and wish to reverse the direction of their efforts by understanding the power of purpose, as well as learning and practicing new principles of management.

The prevailing principles of management are (gradually) giving way to a new style which is better able to succeed in a global, networked world. The new principles of management come from an understanding that we have been moving away from the world metaphor of the industrial (or machine) view of the world. We described this evolution of our mental models in our second white paper “Evolving World View.”²

How we view or SEE an organization determines what we DO. What we do drives what we GET. We call this the “SEE-DO-GET” relationship.³ One of the artifacts from the industrial or “machine” view of management is the image of the organization as a hierarchy. Phrases like “top-down” and “command and control” are associated with this image. However, the hierarchy structure itself (one connected to few, connected to many) has tremendous utility and usefulness in the world we are moving toward. The emerging style of management can use this familiar structure simply by turning it on its side. We call this evolving style “Side (by Side) Management.”

The prevailing (but disappearing) style of management

In our second white paper “Evolving World View”² we described how the prevailing principles and style of Western management are (gradually) giving way to a new style which is better able to succeed in a global, networked world. The new principles of management come from an understanding that we have been moving away from the industrial view of the world and moving toward a network or “systems” view. The red box in Figure 1 illustrates that we are currently navigating between the failing assumptions of an industrial view of management, to a new world view.



The principles of enterprise excellence that we describe in our “Foundations for Transformation”¹ white paper describe principles for aligning the organization toward a common purpose, enabling the people who work in the system, and improving all the work systems in an organization. These principles (and assumptions) are significantly different from the principles of the prevailing view of the world as summarized in Table 1:

Table 1 – Assumptions of Prevailing Style of Management Versus New Principles of Management

Prevailing Assumptions (Industrial View)	New Principle (Systems & Knowledge View)
Cause and effects are clearly known.	Cause and effects are not clearly known. Understand complexity.
Outcomes are constant.	Outcomes are variable.
Predictions are based on prescriptive theories – recipes for success.	Predictions are based on empirically-tested theories.
Every condition has a definitive answer.	Most conditions have no one definitive answer.
When things go wrong (and right), we focus on the individual.	Understand the interaction between the individual and the systems that they interact with.

¹ <http://bit.ly/IXfoundations7>

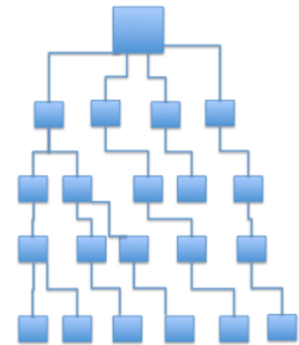
² <http://bit.ly/evolvingworldview5>

³ <http://bit.ly/truetruenorth4>

Improvement comes from tools and methods.	Improvement comes from theory tested empirically through application of the Plan Do Study Act (PDSA) cycle.
Focus on extrinsic motivation.	Understand and leverage intrinsic motivation.
A few people at the top manage the organization. These few are the “thinkers” and “deciders.” The remaining people are the “doers.”	The organization is managed as a system with involvement by everyone. Everyone is a “thinker” and a “doer” according to how they make value flow better to the customer, and build and share this knowledge.

In this paper, we’d like to discuss and elaborate upon the last assumption from Table 1. One of the mental models from the industrial or “machine” view of management is the image of the organization as a hierarchy (Figure 2). If you ask most anyone to show you where they work in an organization, the answer almost always seems to include an image like this. Phrases like “top-down” and “command and control” are associated with this image. It is interesting to note that the customer is not included in this view of the organization.

Figure 2. Prevailing View of an Organization



One of the most useful explanations about the history of the hierarchy view in management comes from Peter Scholtes⁴ who described the collision of two Western Railroad passenger trains in 1841 in Massachusetts. The train wreck was the “Shuttle disaster” of the day, and people wanted explanations for how this occurred and what needed to be done to prevent it from happening again. At this time in history, businesses operated much like cottage industries. There were some models for management (the military and the church) but the idea of management as a function was not yet fully developed. In order to address the Western Railroad train wreck disaster, an investigation was launched by the Massachusetts legislature. A commission was led by Major George Whistler to study the problem. Part of the recommendations for the railroads was an organizational structure similar to Figure 2. The chart was adapted from the Prussian Army and introduced to American business as a way to prevent future train wrecks. It is not surprising that Major Whistler (a West Point graduate) proposed such a model. One fundamental premise of the “train wreck” approach to management is that the primary cause of problems is “dereliction of duty.” Thus, the chart became a way to find out who to blame when something went wrong.

Hierarchy and Physics – The Constructal Law

The hierarchy structure (one connected to a few, that are connected to many) has received a bad rap as a symbol of inequality and control. However, as we will explain in this section, hierarchy is essential to good design, lending tremendous utility and usefulness in the world we are moving toward. Some understanding of the “Constructal Law of Physics” helps to explain the utility of the hierarchy structure in the systems view of management. Dr. Adrian Bejan defined a new law of physics (the constructal law) as follows:

“For a finite-size flow system to persist in time (to live), its configuration must evolve in such a way that provides easier access to the currents that flow through it.”⁵

The fundamental idea is this: Everything that moves, whether animate or inanimate is a flow system. All flow systems generate shape and structure in time in order to facilitate this movement across a landscape filled with resistance (e.g. friction). The designs we see in nature are not the result of chance, they arise naturally, spontaneously, because they enhance access to flow in time. Flow systems have two basic features:

- 1) The current that is flowing (e.g., fluid, heat, mass or information), and;
- 2) The design through which the current flows.

A lightning bolt is a flow system for discharging electricity from a cloud. It creates a branched structure because this is a very efficient way to move electricity from the cloud to a point on the ground. A river basin’s evolution produces a

⁴ *The Leader’s Handbook*, Peter Scholtes, 1998

⁵ *Design In Nature*, Adrian Bejan, J. Peder Zane, 2012

similar architecture because it, too, is moving current (water) from an area (the plain) to a point (the river mouth). This treelike pattern emerges throughout nature because it is an effective design for facilitating point-to-area and area-to-point flow. Wherever you find such flows, you find a treelike structure. The structure has one, the few and the many (one trunk, a few branches, many roots, stems, twigs and leaves). For a tree, all parts of the structure are necessary for efficient flow of water from the ground to the air.

Man-made organizations are also governed by the constructal law of physics. We see the patterns of the channels have a vascular (tree-like) shape, and the same structure that we see in point-to-area flow systems in nature. One “current” that flows under the prevailing (vertical) view of the organization (Figure 2) is “command and control.” The constructal theory applies equally to man-made social structures (economies, governments, educational institutions, etc.), seeing them as flow systems that are dynamic, not static. Social systems generate hierarchical structure for the same basic reasons that other flow systems do: because point-to-area and area-to-point move their currents more efficiently with it than without it.

Almost every organization has one leader, who (like the main river channel) must handle the most important information and authority. In government, the leader is assisted by a few top advisors, who work with and oversee many individuals who form the bureaucracy. “Few large and many small” is the concise name for what others describe as the emergence of “complex” design and “hierarchy.”

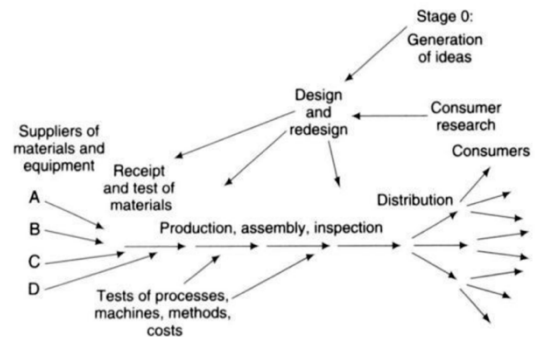
This same hierarchy is described as “vertical integration” in the business world (one CEO, few managers, many workers). For instance, at an automobile factory, supervisors use channels of communication to direct workers and machines on the assembly lines. Once the vehicles are manufactured, they are sent out into the world (an area) through actual channels that bring them to the dealerships that use their own channels of communications (advertising, word of mouth, etc.) to reach customers. These channels evolve over time. Some larger, some smaller. But the changes that stick are those that allow the flow system to persist in time. The hierarchical design has a predictable pattern very similar to what we find the evolution of a river basin.

This is the basic design of many businesses. By design, we mean something very specific – the actual drawing that flow systems create over time. Dr. W. Edwards Deming introduced this view of the organization when he provided lectures to Japanese leaders and engineers beginning in 1950 (see Figure 3). Dr. Deming described it this way:

“Improvement of quality envelops the entire production line, from incoming materials to the consumer, and redesign of product and service for the future. This chart was used in Japan in August 1950. In a service organization, the sources A, B, C, etc., could be sources of data, or work from preceding operations, such as charges (as in a department store), calculation of charges, deposits, withdrawals, inventories in and out, transcriptions, shipping orders and the like.”⁶

The constructal law makes no value judgments. Enlightened democracies and rigid dictatorships both display hierarchy, as do well and poorly run companies. What the constructal law predicts is that hierarchy should emerge naturally as a result of the tendency of moving things to generate designs that facilitate flow access. The constructal law also predicts that the rigid hierarchy will give way in time to a freely morphing hierarchy. A useful example of how this structure evolves is illustrated in the book *Team of Teams*⁷. General Stanley McChrystal describes how the United States military

Figure 3. Organization Viewed as a System

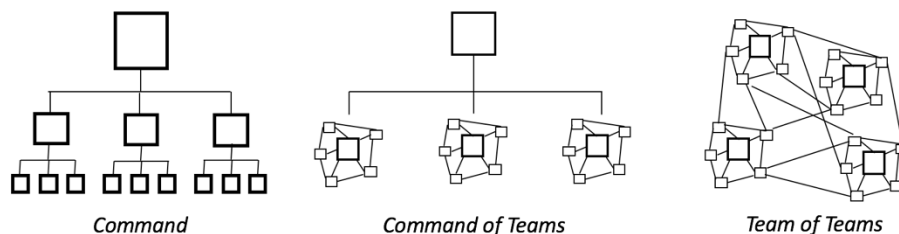


⁶ *The New Economics*, W. Edwards Deming, 1993

⁷ *Team of Teams: New Rules of Engagement for a Complex World*, Stanley McChrystal, 2015

needed to break free from the traditional view of management and military tactics to defend against a decentralized Al Qaeda network in Iraq as illustrated in Figure 4.

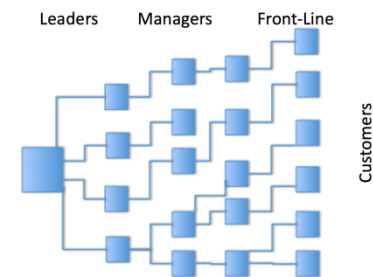
Figure 4 - Evolution of Hierarchy Model



If we rotate the traditional hierarchy structure 90 degrees counter-clockwise (Figure 5), then overlay this on top of Deming’s view of the organization as a system (Figure 6) we can begin to see that “current” that flows in this structure is value to the customer. Instead of “command and control” we manage by “alignment and coaching.”

In terms of the “one” the “few” and the “many” we can think in terms of leaders, managers and the front line (Figure 5). When we add the customer, we can now discuss what we mean by “side-by-side” management (versus “top-down”). Figure 7 represents where the leaders, managers and front-line would spend their time in an organization that produced optimal value to the customers (current customers and future customers).

Figure 5. Side-By-Side Management



Leaders (the CEO and direct reports) would spend most of their time and focus on preparing the organization for the future. This would include developing as well as deploying strategy. They would still have a role and responsibility with daily management – primarily focusing the organization on improving the “vital few” systems that provide value to the customers. Managers would spend their time translating and deploying the key strategies, as well as coaching and guiding daily improvement of the systems that provide value to the customers. The front-line staff (the value creators) would spend most of their time and focus on improving the work processes that provide value to the customer. All three groups would have some of their time dedicated to defining and improving their standard work (the agreement about the current best way that they do their work).

Figure 6. Overlay Hierarchy and System View

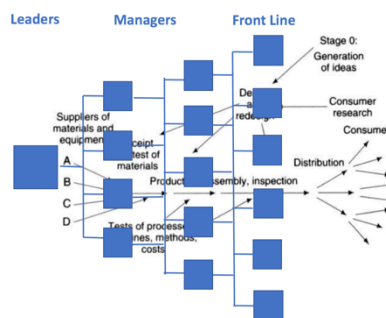


Figure 7. Where people spend time and focus (ideal state)



When we look at an entire business, the CEO is the main channel. But as we go down the level of authority, from senior and middle managers to the foreman on the factory floor, these tributaries serve as main channels for the streams they feed.

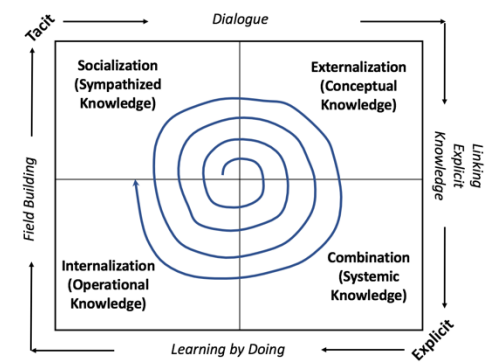
Knowledge Creating Organizations

We can also apply the constructal law to the understanding of the evolution of knowledge. All the great discoveries, from Newton’s laws of motion to the laws of thermodynamics, didn’t just tell us something new, they organized and streamlined our knowledge. They replace bulky measurements with principles that serve as new main channels in the hierarchical flow of knowledge about how things should be in nature. We keep up with the steady flow of new information through a process of simplification by replacement. Empirical information (measurements, data, empirical models) are replaced by much smaller summarizing statements (concepts, formulas, principles and laws). The laws are the extremely big rivers.

In their 1995 book *The Knowledge-Creating Company*, Nonaka and Takeuchi describe organizational knowledge creation as the “capability of a company as a whole to create new knowledge, disseminate it throughout the organization, and

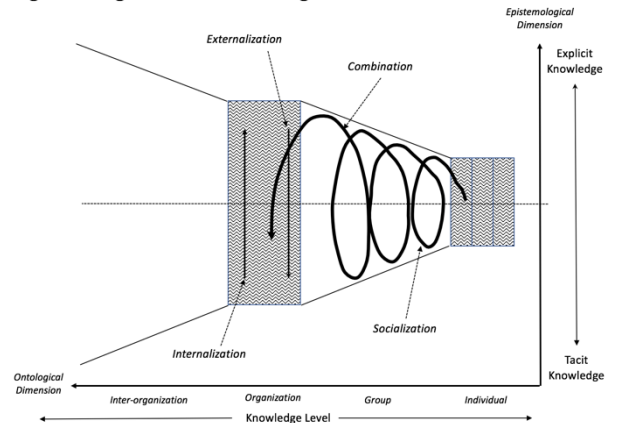
embody it in products, services, and systems.”⁸ They classify knowledge as both *explicit* knowledge (which can be articulated into formal language) and *tacit* knowledge (personal knowledge that is embedded in personal experience). Their SECI model (Figure 8) illustrates how socialization yields “sympathized knowledge,” such as shared mental models and technical skills. A tacit skill (e.g. something that is learned through apprenticeship) is an example. Externalization outputs “conceptual knowledge” (e.g. a concept that drives a new product or service design) exemplified by useful metaphors. Combination yields “systemic knowledge” such as new product and service components. Internalization produces “operational knowledge” such as how to manage a project, work processes and policy implementation.”

Figure 8. SECI Model



An organization cannot create knowledge by itself. Tacit knowledge of individuals is the basis of organizational knowledge creation. The organization must mobilize tacit knowledge created and accumulated at the individual level. The mobilized tacit knowledge is amplified through four modes of knowledge conversion and crystallization at higher ontological levels. The knowledge spiral is illustrated in Figure 9.

Figure 9. Organizational Knowledge Creation



When viewed from this perspective, we can see Nonaka and Takeuchi’s knowledge spiral model overlaid on the “side-by-side” model (Figure 5). Nonaka and Takeuchi describe what they call “middle-up-down” management as an alternative to “top-down” and “bottom up” management. The implicit assumption behind the “top-down” model is that only top managers are able and allowed to create knowledge. In addition, knowledge created by top managers exists only to be processed or implemented, thus it is only a means, not an end.

With “bottom-up” management we see support for autonomy of individuals rather than hierarchy and division of labor. In such a model, there is little direct dialogue with other members of the organization, either vertically or horizontally. Autonomy, not interaction, is the key operating principle.

The top-down model is suited for dealing with explicit knowledge. But in controlling knowledge creation from the top, it neglects the development of tacit knowledge that can take place on the front line of an organization. Bottom-up, is good at dealing with tacit knowledge but its emphasis on autonomy means that such knowledge is difficult to disseminate and share within the organization.

Nonaka and Takeuchi describe an alternative “middle-up-down management” which is similar to our “side-by-side” model, as well as McChrystal’s “team of team” model. In this model, knowledge is created by middle managers, who are often leaders of a team or task force, through a spiral conversion process involving both the top and front-line employees. The process puts the middle manager at the very center of knowledge management, positioning them at the intersection of the vertical and horizontal flows of information in the company.

Summary

How we view (SEE) the organization determines what we DO, which drives what we GET.³ By turning the top-down hierarchy model clockwise 90 degrees, can open untapped possibilities for value creation, knowledge creation and employee engagement.

⁸ *The Knowledge-Creating Company*, Ikujiro Nonaka and Hirotaka Takeuchi, 1995.

Our White Paper Series:

Our first white paper “Foundations For Transformation: Linking Purpose, People and Process”¹ describes the common patterns that we have observed as executives and managers have attempted to create a culture of continuous improvement in their organization. Many find themselves trapped in a cycle of “program of the month” approaches that never seem to produce the sustainable transformation of management that is necessary. However, there are some who desire to break away from this pattern, and wish to switch the direction of their efforts by understanding the power of purpose, as well as learning and practicing new principles of management.

Our second white paper “Evolving World View: Implications for All Industries, Including Healthcare”² describes the sources of knowledge that will be needed to manage effectively in the twenty-first century. We described how the world view is changing from the “machine age” mindset that has driven the traditional “plan, command and control” approach, to a “systems view.” We explain the evolution of thinking that is the foundation for the principles of enterprise excellence.

Our third white paper “Practical Wisdom for Addressing Problems”⁹ describes the practical benefits of understanding the difference between convergent and divergent problems, including what we can reasonably expect from ourselves and from others when attempting to address the important problems of management. The tendency for most executives and managers is to look to recipes and formulas to tell us what to do – a prescription for how to deploy a lean management system. There is no recipe, formula or prescriptions. But there is knowledge that can guide our actions.

Our fourth white paper “One Approach to Deploying a Purpose and Principle-Driven Transformation”¹⁰ shares our current thinking about “deploying a cultural transformation” based on the knowledge and contributions of many thought leaders, as well as observing patterns in organizations from many industries that are attempting and succeeding at a cultural and management transformation.

Our fifth white paper “Principles for Personal and Organizational Transformation – Align”¹¹ describes the principles behind the IEX model, specifically those principles primarily focused on aligning the improvement efforts so that individuals can have a clear “line of sight” between the work they do every day and how it connects to and supports the organization’s purpose.

Our sixth white paper “Principles for Personal and Organizational Transformation – Enable”¹² describes the principles behind the IEX model, specifically those principles primarily focused on enabling people to be engaged in, and improve their work systems.

Our seventh white paper “Principles for Personal and Organizational Transformation – Improve”¹³ describes the principles behind the IEX model, specifically those principles primarily focused on improving the work.

Our eighth white paper “Systems By Design”¹⁴ describes the importance of design and redesign of key systems, in particular supporting systems of alignment, enabling and improvement. We describe a method, including a “system standard” that can help any executive and manager design and redesign key systems that will help them contribute to their organization’s purpose.

Our ninth white paper “True, True North”³ describes the benefits of more fully understanding True, True North and how this can avoid the trap of the narrow definition of True North only as measures. This matters, because without this understanding the pursuit of true north can merely be “management by results” in disguise.

⁹ <http://bit.ly/practicalwisdom4>

¹⁰ <http://bit.ly/IEXDeploy3>

¹¹ <http://bit.ly/alignprinciples3>

¹² <http://bit.ly/enableprinciples3>

¹³ <http://bit.ly/improveprinciples2>

¹⁴ <http://bit.ly/systemsbydesign2>

Our tenth paper “Side (by Side) Management”¹⁵ describes a more useful view of the traditional hierarchy model, and the implications for connecting strategy deployment to daily management in order to provide value to customers, as well as facilitating true knowledge creation in the organization.

The Institute for Enterprise Excellence

The Institute for Enterprise Excellence (IEX) was established in 2013 as a research, education and coaching institution that focuses on helping organizations build principle-based architecture to achieve world-class results.

We bring purpose to life by advancing the use of practical application of principles, systems and tools in pursuit of enterprise excellence.

What differentiates us is our Principle-based Deployment Model, the culmination of many years of application experience and continuous research in the field of behavior and performance.

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¹⁵ <http://bit.ly/sidebysidemgmt>