The Devil Is Not in The Details!

John Pourdehnad Ackoff Center for Advancement of Systems Approaches (ACASA)

In2:InThinking Network 2007 Forum April 12 - 17

Jp2consult@aol.com



Mindset Challenge





Mindset - A Definition

A set of assumptions, methods or notations held by one or more people or groups of people which is so established that it creates a powerful incentive within these people or groups to continue to adopt or accept prior behaviors, choices, or tools.

Source: Wikipedia





An Example!

"Cold War" Mindset:



- Prevalent in both the US and USSR, which included absolute trust in two-player game theory, in the integrity of command chain, in control of nuclear materials, and in mutual assured destruction of both in the case of a war.
- This mindset, usefully, served to prevent an attack by either.



Another Example!

The view that mindsets can differ and that they can have a powerful impact on corporate strategies is illustrated well by the case of Kenneth Olsen, founder and then CEO of digital equipment (DEC).





DEC Story

 In the mid-1970s, DEC was the world's second-largest computer company and the market leader in the mini-computer segment.

 In 1977, Olsen observed that "there is no reason for any individuals to have a computer in their home."

 This was the same year in which Steve jobs and Steve Wozniak incorporated Apple computer and launched the PC revolution."

DEC (Continued)

- Olsen's mindset and his power over the company he had founded caused DEC to become a late entrant in the PC market, a delay that never allowed the company to recover its footing.
- By the mid-1990s, DEC ceased to exist as an independent company. It was acquired by Compaq, a personal computer manufacturer, and the rest is history...



Devil Is In The Details Mindset

- a variation of "God is in the details -Whatever one does should be done thoroughly; details are important."
- The saying is generally attributed to Gustave Flaubert (1821-80), who is often quoted as saying, "Le bon Dieu est dans le detail" ("God is in the details").
- "The Devil is in the details" is a variant of the proverb, referring to a catch hidden in the details. "Governing is in the details" and "The truth, if it exists, is in the details" are recent variants.

InThinking Network

Organizing Principle – K I S S

- Keep It Simple, Stupid!
- The empirical principle that most systems will work best if they are kept simple rather than made complex
- The focus is on improving efficiency
 - DOING THINGS RIGHT



Mode of Thinking -- Analytic

Step 1 - Take the thing or event to be understood apart, preferably down to its indivisible parts, elements.

Step 2 - Explain the behavior or properties of each part taken separately.

Step 3 - Aggregate the explanations of the parts into an explanation of the whole.



There Are Dramatic Changes

- Rapidly increasing global interconnectedness
- Increasing domination of market forces
- An increasingly turbulent, complex, and chaotic environment
- As advances in technology decrease the cost of experimentation, organizations' scarcest resource becomes their dreamers, not their testers
- Yearning for significance—success is no longer enough



Source: Adler

Complex Challenges for a Complex World

- Management in today's fast-changing world face many complex issues, such as industry restructuring, outsourcing, the impact of globalization, the Internet, customer relationship management, Corporate Social Responsibility and more.
- A crisis of understanding is upon us;
 - it is not clear which activities are relevant;
 - it is not certain how or to what extent these activities are interdependent; and
 - the environment to a manager appears ill-structured, dynamic, and uncertain.



Source: Carlsson

Characteristics of Complex Systems

- ✓ A large number of elements;
- ✓ Many interactions among the elements;
- ✓ Attributes of the elements are not predetermined;
- ✓ Interaction among elements is loosely organized;
- ✓ They are probabilistic in their behavior;
- ✓ The system evolves over time;
- √ "sub-systems" are purposeful and generate their own goals;
- √ The system is subject to behavioral influences;
- ✓ The system is largely open to environment.

Source: Flood and Jackson



Need to Change -- Mindset



Is key to learning anew.

 Until a person can see their reality in a different way they will not be able to let go of the assumptions they have relied on that drove them to their present state.

 The mindset is the gatekeeper of the learning process in the brain and it has to be transcended in order for new learning to set in and therefore lay a new foundation for a new mindset.

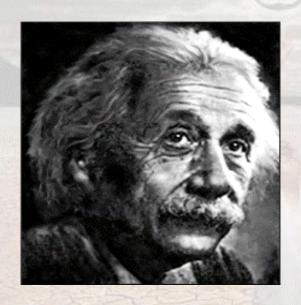


Need for Unlearning

- Unlearning required is identified by perceptual gaps between the individual's mindset and actual situations.
- Mindset, or worldview, for the purposes of our discussion here, is described as the values, beliefs, experiences and assumptions of the individual.



A Quote From Einstein



"Without changing our pattern of thought, we will not be able to solve the problems we created with our current patterns of thought."



Systems Thinking

- The transition, now underway in western society, from a mechanistic view of the world to systemic view.
- The concept of systemic wholeness (looking at the whole instead of the parts).
- Systems thinking is first and foremost a point of view and a methodology arising out of this view point.



Systems Thinking – "A Point of View"

- In systems thinking we should be looking at wholes whose systemic properties cannot be identified by the examination of the separate actions of the parts.
- Systemic properties are derived from the interaction of the parts of the system and not from the separate actions of the parts.



Systems Approach

- System implies an interconnected complex of functionally related components.
- The effectiveness of each unit depends on how it fits into the whole, and the effectiveness of the whole depends on the way each unit functions.
- Systems approach is a formal awareness of the interactions among the parts of a system.



Synthetic Thinking --Emphasis on Understanding

- Identify the whole of which the system to be explained is a part.
- Explain the behavior or properties of the containing system.
- Disaggregate the containing system so as to identify the role or function within it of the system to be explained.



Organizing Principle for the 21st Century – K I C S!

- Keep It Complex Smart!
- Gestalt psychology
- Going beyond disciplinary and interdisciplinary studies – metadisciplinary
- Transdisciplinary teams
- The focus is on effectiveness
 - DOING THE RIGHT THING



Orientation and Focus

- Focus on properties of systems that their parts do not have, on the functions of systems within the larger systems that contain them, and on the effect of the properties of the system on the parts.
- It is more concerned with the way parts of a system interact than act, and, most importantly, with purposes of parts, the system, and the systems that contain it.



Consequences of Shift in Mindset

When we shift from a "mechanistic view of the world" to a "systemic view of the world", accordingly we need to change our method of inquiry (and our thought process).



Change in Method of Inquiry

From	То
Analysis (An explanation of the whole derived from explanation of its parts.)	Synthesis (An explanation of the whole derived from explanation explaining the role of the system in the larger system of which it is a part.)
Reductionism (The belief that everything can be reduced.)	Expansionism (The system is always a sub-system of some lager system.)
Cause and Effect (Environmental free theory of explanation, a cause needs to both necessary and sufficient in order to have the corresponding effect.)	Producer-Product (Environmental full theory of explanation as opposed to cause and effect where the importance of the environment is stressed.)
Determinism (Fatalism.)	Indeterminism (Probabilistic, observe and discover.)
Research (The embodiment of the above to arrive at instructions based on theory.)	Design (The embodiment of the above to facilitate learning. Designing the whole systems means creating a system configuration that is optimum.)

InThinking Network

2007 Forum

Important Implications of Systems Thinking

- False Assumption: If the performance of some or all of the parts of a system is improved, the performance of the system will be improved.
- In fact, the performance of a system is not necessarily improved when the performance of some or all of its parts, taken separately, is improved.
- A system may be destroyed by improving the performance of one or more of its parts taken separately.

Additional Implications

- Among the most important things management needs to know is how the parts of the system managed interact, and how these interactions affect the performance of the whole.
- Also, problems are seldom best treated where they are first recognized.
 - They should be viewed from as many different perspectives as possible so that the one(s) that yields the most effective treatment of the problem can be selected



Different Views of Systems

Viewed structurally, a system is a divisible whole; but viewed functionally, it is an indivisible whole in the sense that some of its essential properties are lost when it is taken apart.



Systems View of Problems

"Problems are to reality what atoms are to tables. We experience tables, not atoms. Problems are abstracted from experience by analysis. We do not experience individual problems but complex systems of those that are strongly interacting. I call them messes."

Source: Ackoff

"This means that problems are no longer discrete, and that they do not occur in additive sets that can be disaggregated. Instead, they are systems of problems, which Ackoff has termed messes."

Source: Ramirez



System of Problems (Messes)

"Messes are sets of highly interdependent problems where problem formulation and structuring assume greater importance than problem solving using conventional techniques. . . . It is argued that most strategic problems in organizations are "wicked problems" of organized complexity, but that most management science methods are only suitable for simple, well structured problems."

Source: Flood and Jackson



Current Approaches to Problem Solving

- Absolution: ignore the problem and hope it will solve itself or go away.
- Resolution: use experience, common sense, qualitative judgment – a clinical, humanistic, "satisficing" approach.
- Solution: use scientific research, experimentation, quantitative analysis, and optimizing techniques.



Systems Approach to Problem Solving

- Dissolution: redesign the system that has the problem or its environment so as to eliminate the problem.
- Preventing a disease by inoculation (dissolution) is better than curing it (solution) once it has occurred.
- Dissolution may incorporate all the other ways of treating problems.



Designing a System

- Designing a system is the best way to acquire knowledge and understanding of a system, and therefore, to assure its working effectively.
- Idealized design is the best known way of designing or redesigning a system.



Idealized Design

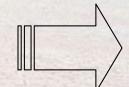
Assumes that the existing system, but not its environment, was destroyed last night. It consists of that system its designers would have if they could have any system they wanted, subject to three constraints:

- -Technologically feasible
- -Operationally viable
- -Capable of learning and adapting rapidly and effectively



In Conclusion.....

Consider the vast possibilities when rethinking and revisiting the things that we often take for granted.....





• The devil is not in details...; it is in relationships!

 And, this notion is incredibly "counter intuitive" to those who have not yet challenged their thinking about thinking.

