

Ongoing Discussion “Thought Piece”

Prepared by

Jane Lorand

janelorand@gmail.com

December 2010

Ongoing Discussion Host: Bill Bellows

william.bellows@pwr.utc.com

for

**Pratt & Whitney Rocketdyne’s
InThinking Network**

Counter-Intuitive, Systemic Approaches to Complexity

Jane Lorand

Future Insight Maps, Inc. 2010

As managers and leaders, if we are candid, we have to acknowledge that the complexity surrounding our work is broader and deeper and more fast-moving than we can reliably manage. The best and brightest of us, the most hard-working amongst us are caught in a reality that outpaces our human capacities to optimally perceive, to understand, to imagine, and to innovate. When we find ourselves with pressing responsibilities to act, we also find ourselves artificially and arbitrarily narrowing our field of perception and identifying a “problem” and then a “solution” out of the true field of related problems and related solutions. We act because we must act. We’re uncomfortable and often hide the complete picture from ourselves and our colleagues. Is there another way?

And then once we make a decision, the pressure steps up to a new level. We begin to defend the choice we made in recognizing and/or defining “the” problem and “the” solution that we acted on. We may keep the edges blurry to deflect future accountability. We know intuitively that we are not as certain as we would like to be. We are professionals, and we hold ourselves to very high standards of professionalism. Yet, if we are honest with ourselves, and recognize the complex field within which we have to act, we know in our hearts that we are putting our organization at a level of risk higher than we find acceptable. We know we’re missing crucial information, but what are we missing?

Our defenses may take many forms: limiting conflicting information that comes toward us; avoiding challenges to our authority; declining to revisit “the” solution; and failing to engage in close observation if mid-stream corrections would make us lose face. We move on to the next situation where we are again called upon to act. And so it goes, day after day, week after week. Our strength and enthusiasm are progressively sapped. If truth be told, we aren’t fooling anyone because our colleagues are engaged in similar charades. This is not personal: it is systemic and a function of the complexity of our world. Each of us is free to change in the face of this reality, but how? Systemic and critical thinking strategies offer today’s managers, leaders, and decision-makers a set of counter-intuitive methods that promote and assess productivity in the face of complexity. High levels of uncertainty is the norm: we need methods and tools that acknowledge this reality.

Ideally, we want each leader, manager, and staff member to work as if the success of each project were up to them. Yet, our visual field at any moment of our waking time is about 120 degrees, pushing to 180 degrees at the peripheral extreme. We can’t see behind us. We can hear at 360 degrees, but only in real time and within our auditory range. We mis-perceive even what we directly perceive because of our biases. Our memory limits us in profound ways. As humans, we are limited, yet as managers and leaders, we are expected to know everything relevant and let it inform our rigorous judgment about the optimal way to proceed. What support and guidance do we need?

In companies worldwide, when managers are trying to manage amidst increasing complexity and Complex Issues, our intuitive response is to work harder, longer, and to hold more tightly

to the reins of the organization for which we are directly responsible. Yet, Complexity Science and Systemic Thinking reveal that a counter-intuitive set of responses is far more likely to optimize our position and situation.

If we draw a metaphor from a complex traffic challenge: our intuition is to grip the wheel tighter and try to slow everything down. In such a complex situation, we don't know what to attend to. We don't know which variable will be outcome-determinative of our survival.

Complex issues management in organizations is similar. It is counter-intuitive to release our grip and open our hands, and further the opening of the hands of all those in our organization. Yet, the unfurling our fingers to catch multiple perspectives yields an abundance of timely, relevant information sweeping in, wave after wave, hour after hour. We usually don't have to decide in a micro-second...but we do have to decide with a day or a week or a month.

We can capture that abundance, and put it into service of our organization. What, exactly, would it be like to relax our grip and let our fingers uncurl, and stay uncured and sensing? How, exactly, would we capture the details and impressions and interpretations of all of our people, from their unique perspectives? If we could do that, working with colleagues to identify the emergent patterns and even the weak signals, would we be better positioned? Would our responsibility to make that decision to act be shared in a distributed leadership model that allows diversity to serve us and our organization? As any financial advisor will tell us, diversity is a pillar of sound financial management, yet most organizations support communication patterns and expectations that cut off the benefits of diversity. We can change that.

We need to have all of our people recognize how important their role is in sensing the environment in which we are trying to provide our goods and services. If they don't know that we need and value their unique impressions, they won't be awake in service of the company. If we don't have systemic methods of capturing their impressions and interpretations, we managers and leaders who are stuck making decisions will be acting on a fraction of the possible relevant information. If the methods we develop are burdensome, we will abandon them. Yet, there are methods and tools that work, and are not burdensome. In actual fact, these methods enliven organizations, extend the experience of belonging, and make teamwork and collaboration more than shop-worn phrases.

A second example of counter-intuitive responses to complexity relates to time, and how we use and mis-use time as individuals, and as groups. Rarely is time optimized, yet how do our managers engage in artfully-designed learning experiences that enable deep, counter-intuitive lessons to emerge?

Future Insight Maps, Inc. is a team of business people who honor the systemic dilemmas of today's managers and leaders. This is not personal, nor is it about "good managers" and "bad managers." The best of us are laboring under limitations of our human nature in the face of complexity and turbulent issues. These limitations can be mitigated, and finessed into competitive strengths. This involves acknowledging the barriers to our conventional, intuitive reactions to complexity. Gripping tightly to the steering wheel is not helpful, and in fact ends up doing more harm than good on winding roadways.

Our teams and tools invite managers, leaders, and decision-makers to experience alternative methods of perceiving, thinking, and working that must be experienced and not just read about. Why can't one just read about these methods and put them to work? Again, human nature appears. Our intuition is very powerful, and we won't override it without hard proof that what we thought was imperative, is, in fact, sub-optimal. It is our experience, as organizational advisors, that this learning can only come about through directly experiencing alternative ways of perceiving, of thinking, of working. New, direct experience will quickly over-ride a lifetime of prejudice.

We work with individuals, in groups. But our work speaks to each individual manager, each leader, as a person who is striving mightily in situations that can only be improved systemically. From a causation perspective, these situations are not personal. Yet, we are human beings, guided by intellectual humility, working with fellow human beings. And this, as Future Insight Maps professionals, is very personal.

Complex Issues See a brief explanation of the characteristics and examples of what we describe as Complex Issues on the next page.

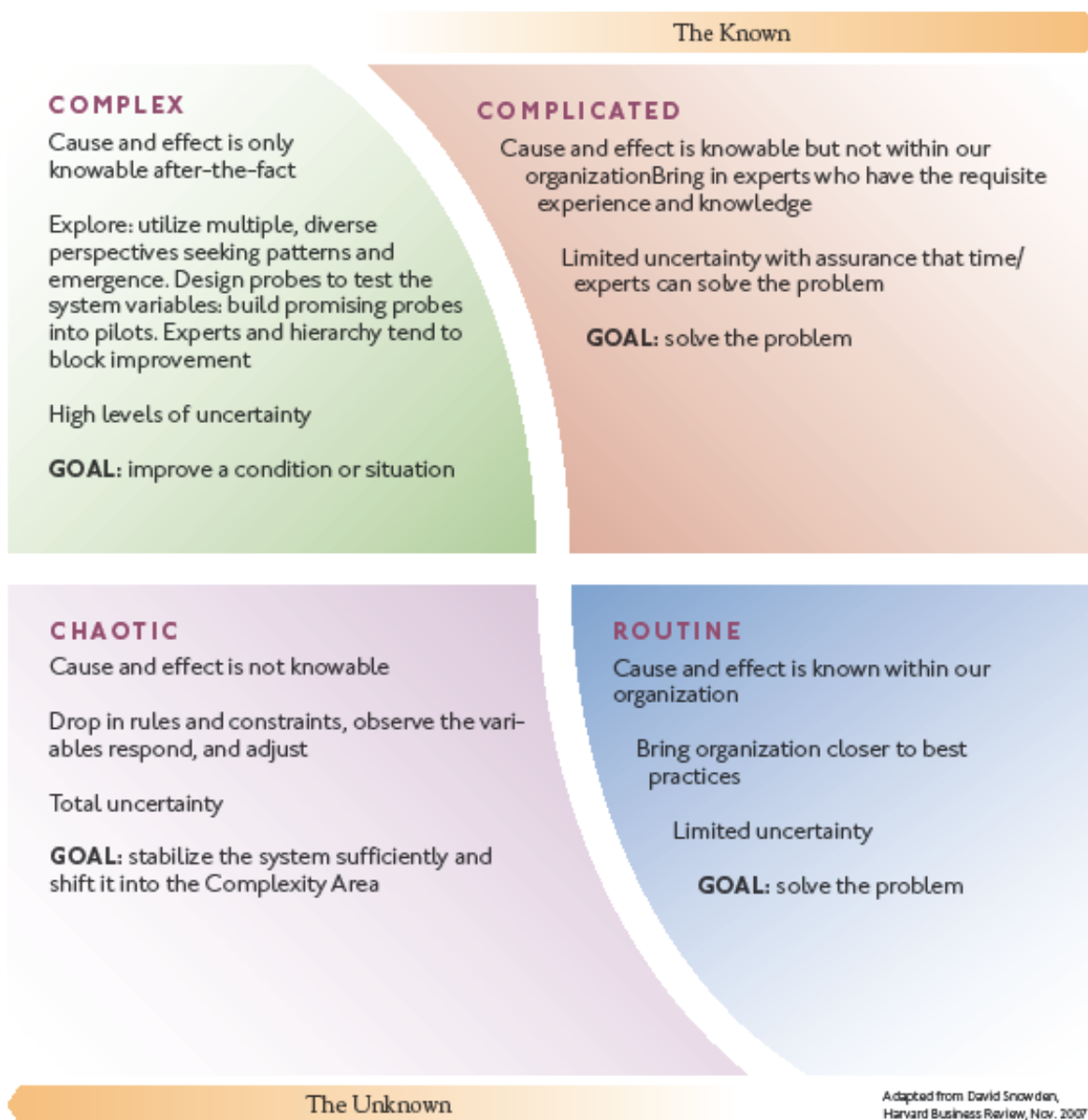
Characteristics of Complex Issues

1. No definitive cause/effect relationships can be established in the present....only after the fact can we begin to identify patterns and build on that knowledge.
2. There are multiple variables, each evolving without communication with the others
3. The control of key variables sits outside the organization
4. Command and control methods of hierarchical management make the problems worse.
5. There is increasing scrutiny and demands by stakeholders to align the organization with the values and concerns of the often-disparate groups.
6. No one person or team can know or access the indispensable information on a consistent basis.
7. In many organizations, there is a lack of alignment between the pressures for profit and the values put forth by the organization as its Vision and Mission. This creates ambiguity and fear which is compounded by the pressures of the complex issues themselves.

Examples of Complex Issues

1. Global, national, regional and local implications of climate change mitigation
2. Escalating and uncertain energy costs
3. Contingent liability for current and past pollution and toxicity: "Polluters Pay Their Way"
4. Breakdown in eco-system services creating shortages of arable soil, water, clean air
5. Escalating costs of environmental health hazards
6. Uncertain governmental regulation and market mechanisms to address all of the above
7. Competitive marketplaces from global initiatives that undermine our value in the marketplace.
8. Communication issues across the departments, silos, and levels of our organizations that leave us without the crucial information that is possible.
9. Effective financial planning for individuals, organizations, governments

Categorizing Issues



Our work, in Future Insight Maps, Inc. is addressed to Complex Issues.....those that sit on the “Unknown” side of this visual display.

As you sort out the issues facing you, as a leader or manager, use post-its to help you clarify the categories of issues that you need to decide and see if the strategies that you are using are consistent with the best of knowledge management practices, as they’ve evolved over the past decade.

Biography

Jane is Co-founder of the **GreenMBA** (www.greenmba.edu) and a core faculty member. She works as a consultant to large corporations and state agencies, developing programs for public education in fields such as electric deregulation and telecommunications. A graduate of Hastings College of the Law, University of California, San Francisco, she spent three years at the Center for Critical Thinking developing curriculum, doing research, writing articles and teaching college and high school faculties how to transform their curriculum so students think more and memorize less. She also holds an M.A. in Education and a B.A. in History from UCLA. Jane is a mother of five children; she actively works in her community bringing her analytical and facilitation skills to the benefit of environmental and educational organizations. Jane teaches Critical Thinking for Business Redesign.