Stirring the Creative Juices

KM Singapore 2014

Dr. Alex Bennet
Professor, Bangkok University IKIM
Co-Founder, Mountain Quest Institute
alex@mountainquestinstitute.com
You are really individual beings, with very special talents, bringing insights to the sea of diversity and contrast which is the stuff that creation comes from.

- Abraham, September 13, 1997
Basic Concepts

**Information** is any non-random pattern.

**Knowledge** is the human capacity (potential & actual ability) to take effective action in varied and uncertain situations.

Knowledge is composed of awareness, understanding, meaning, insight, creativity, ideas, intuition, judgment, and anticipating the outcome of your actions.

**Creativity** is the capacity (potential or actual) to perceive new relationships and new possibilities, see things from a different frame of reference, or realize new ways of understanding/having insight or portraying something.

**Innovation** is the outcome of a set of activities that use knowledge to create new value to those benefiting from its use. (deSousa, 2006)

*Creativity and Innovation are in relationship just as information and knowledge are in relationship ...*
Exploring Relationships

INFORMATION

- Basic building block of the Universe
- Organized patterns

CONNECTING INFORMATION WITH NEED OR OPPORTUNITY (KnP)

ASSOCIATIVE PATTERNING

CREATIVITY

- Capacity (potential or actual)
- "Bisociation" of two separate conceptual patterns
- Shifting perceptions
- Seeking new ideas
- A learning process

CONNECTING IDEAS WITH NEED OR OPPORTUNITY (CP)

ANTICIPATION OF OUTCOME

INNOVATION

- Applied Creativity
- Developing effective product or process

KNOWLEDGE

- Capacity (potential or actual)
- Applied Information
- Taking effective action
- NOTE: Learning is the creation of knowledge.

ASSOCIATIVE PATTERNING

ANTICIPATION OF OUTCOME
Ideas Occur Inside Out

• **Consciousness** is the foundation of all being.
• Energy follows thought
• Mind builds form
  – What we think about, we direct energy towards; this focused energy gives thought the power to manifest physically.
• Thoughts and images have a profound creative and motivating power within human consciousness.
• Our beliefs and feelings deeply influence who we are.

*The material world is an effect ... not a cause.*
“Creativity tugs on the unconscious”*

Creative part of the Innovation Process

Preparation
Incubation
Illumination
Verification or Validation

Innovative part of the Creativity Process

Conscious probing of an idea
Conscious mind focused elsewhere, unconscious at work (may last minutes, months or years!)
Flash of insight, or tug, when creative thought bursts through the unconscious
Conscious exploration and testing

Quantum: Possibilities and Potentialities

Conscious Choice

*Henri Poincare. Phases named by mathematician Jacques Hadamard
What we believe in and how we view the world is always reflected in what we think about, what we talk about, and what we do... we are expressing what we believe to be important, our values and beliefs.

So... what we think and talk about and act upon DRIVES our perceptions of the things around us within our threshold...

If a proposed new idea... or strategy or initiative is above our threshold, it is not comprehended and has no perceived value.

The threshold within which knowledge and events make sense to us... At any given moment in time, each individual and each organization functions from a very definable band or region of thinking, talking and acting.

If a proposed new idea... or strategy or initiative is below our threshold, it is dismissed as unimportant.

• Our level of knowledge and the frame of reference from which that knowledge is driven define this window.
• Pushing the edges of this threshold produces discomfort, and we seek to bring our environment and our values and beliefs back into balance.
• As we are able to integrate new experiences and knowledge into our threshold, our understanding increases and, by definition, our threshold moves.
The Future of Innovation

From the Mind/Brain Perspective

1. The hierarchy of invariant forms in the human cortex.
2. Associative patterning throughout the mind/brain.
3. Social networking that enables the emergence of new patterns.

We can *strengthen the connections and relations between our external reality and the internal functioning of our mind/brain.*
1. The hierarchy of invariant forms in the human cortex.

• “Invariant” refers to non varying, or constant.
  – We never see the same world twice; the brain does NOT store exact replicas of past events or memories.
  – The brain stores the meaning or essence of incoming information as patterns of neuronal firings, their synaptic connections and the strengths between the synaptic spaces.
  – The brain stores only the information meaningful to the individual mind/brain.
  – By storing memories in invariant forms, individuals are able to apply memories to situations that are similar but not identical to previous experiences.

• “Hierarchy” represents an order of some complexity, in which the elements are distributed along the gradient of importance.
  – There is a hierarchy of information analogous to the physical design of the neocortex, a sheet of cells the size of a dinner napkin as thick as six business cards.
  – Our cortex has built a model of the world around us, a hierarchical and nested structure that is our perceived model of the real world (Hawkins, 2004).
  – The core pattern (a pattern of patterns) has the possibility of both hierarchical and associative relationships to other patterns.
2. **Associative patterning throughout the mind/brain**

- Associative patterning is the way the mind/brain creates knowledge.
- We learn by changing incoming signals (images, sounds, smells, sensations of the body) into patterns (of the mind and within the brain) that we identify with specific external concepts or objects.
- These incoming neuronal patterns have internal associations with other internal patterns that represent (to varying degrees of fidelity) the corresponding associations in the external world.
- The process of complexing **creates new neural patterns** that may represent understanding, meaning, and the anticipation of the consequences of actions, or, in other words, knowledge. *This is a continuous process of creation.*
- When a new experience or situation is encountered, the brain tries to match it with past experiences and then identifies probable outcomes.
- A series of these similar experience-outcome events generates a belief, frame of reference, or mind-set that drives our decisions.
- When not limited by personal paradigms, the brain also puts past experiences together, coupled with new possibilities based on current data and the creation of new possibilities, **to generate possible new scenarios for the future.**
The interpretation and meaning of incoming patterns are very much a function of preexisting patterns in the brain. 

The intermixing of the external patterns with the internal patterns creates recognition, sense-making, meaning, and ultimately knowledge. **THIS IS WHY ...**

- The creation of knowledge is unique to each individual.

- When we try to communicate understanding it doesn’t mean it will make sense to someone with a different set of patterns and pattern relationships that represent their understanding.

A single thought might be represented in our brain by a network of a million neurons, each connected to one thousand other neurons.
3. Social networking that enables the emergence of new ideas

• Over the course of evolution physical mechanisms have developed in our brains to enable us to learn through social interactions.

• People are in continuous, two-way interaction with those around them, and the brain is continuously changing in response.

• Changes occur in the brain through enriched environments (when the surrounding contains many interesting and thought-provoking ideas, pictures, books, statues).
  – Thicker cortices are created, there are larger cell bodies, and dendritic branching in the brain is more extensive.

• Significant social relationships stimulate learning and knowledge creation and shape the brain.
  – The brain actually seeks out an affectively attuned other for learning.
  – There is an optimum state of arousal.

As a species, we are just waking up to the complexity of our own brains, to say nothing of how brains are linked together. We are just beginning to understand that we have evolved as social creatures and that all of our biologies are interwoven. (Cozolino, 2006)
How do these processes work together?

- Your hierarchical world view provides internal context to the situation at hand based on your life-long observations, experiences and reflection in terms of the strength of your personal meaning and essence. **You are NOT limited by the observable context of the situation at hand (external reality).**

- Through complexing (the learning and creation process) new possibilities can—and will if unbounded by limiting paradigms—emerge.

- Continuous creativity means continuous exposure to a broad range of knowledge and experiences … places and thoughts in resonance with who you choose to be. (There are no age limits … just self-imposed limits!)

- The richer your environment the more potential stimulation of your “creative juices”.
Strengthening Our Connections*

• *Physical mechanisms have developed in our brain to enable us to learn through social interactions.** Choose with whom you interact** *(Relationship Network Management)*.

• *The brain actually needs to seek out an affectively attuned other for learning.** Seek out and participate in safe mentoring experiences.*

• Physical and mental exercise and social bonding are significant sources of stimulation of the brain. **Exercise your mind and body.** Choose stimulating friends and colleagues.

• Language and social relationships build and shape the brain. **Ensure the words you use resonate with the life you choose.**

• Effective attunement contributes to the evolution and sculpting of the brain. **Engage in healthy and sustainable relationships.**

• An enriched environment increases the formation and survival of new neurons ... **CREATING NEW IDEAS** ... **Seek enriched environments.**

*From a Neuroscience Perspective*