



Leading Change
Through Creative Insights

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Creativity in Organizations©

How can creativity become a prime contributor to the strategic objective of the organization?

by

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Executive Summary

This paper provides an historical overview over the last 100 years of the development and affects of applied creative thinking in organizations and asks the question why creativity has not been better understood as an organisational or business process; analyses the findings of a 2008 major national research project entitled 'Is Australian management creative and innovative?' in the context of contemporary creative practice in organisations and offers a benchmarking system – the Management Innovation Index™ as a way for organizations to model their creative ecology and over time, using the organisation's key measures for success, to educate specifically to improve management innovation practice and productivity and ultimately to predict the outcomes of the organization's creativity and innovation behaviours.

Introduction.

In June 2010, IBM released its biennial Global Chief Executive Office Study co-ordinated by the IBM Institute for Business Value containing a summary of 1500 interviews conducted personally with CEO's operating at a global level entitled "Capitalizing on Complexity"¹. Samuel J. Palmisano, Chairman, President and CEO, IBM Corporation highlighted in his introduction to the report, the three main agendas currently occupying global CEOs' business and strategic thinking.

The first and most challenging agenda was "the rapid escalation in complexity confronting them" which they "...expected to continue and, indeed, accelerate in the coming years..." The concern accompanying this challenge and the second agenda item was CEOs and their organizations do not perceive they are "...equipped to cope effectively with this complexity in the global environment..."

These circumstances led the CEOs to identify "...creativity as the single most important leadership competency for enterprises seeking a path way through the (emerging) complexity..." as the third agenda item.

The identification of "creativity" as the single most important leadership competency for enterprises is far from new thinking either corporately or in management or organizational theory and the IBM Report in and of itself offers little new insight.

Indeed, creativity and the creative process in an organizational context have been occupying the thoughts of Western business leaders and executives, politicians and academics since the late 19th and early 20th centuries. Graham Wallas, a founding lecturer at the London School of Economics and a founding member of the Fabian Society (along with H.G Wells and George Bernard Shaw) outlined in his book "The Art of Thought" (1926) what is generally accepted as the first articulated Western theory of the five stages of the creative thinking process which he defined as

- "(i) *preparation* (preparatory work on a problem that focuses the individual's mind on the problem and explores the problem's dimensions),
- (ii) *incubation* (where the problem is internalized into the unconscious mind and nothing appears externally to be happening),
- (iii) *intimation* (the creative person gets a "feeling" that a solution is on its way),

¹ [IBM Global CEO Study 2010 Capitalising on Complexity](https://www-935.ibm.com/services/au/ceo/ceostudy2010/register.html) <https://www-935.ibm.com/services/au/ceo/ceostudy2010/register.html>

(iv) *illumination* or insight (where the creative idea bursts forth from its preconscious processing into conscious awareness);
and
(v) *verification* (where the idea is consciously verified, elaborated, and then applied).²

In 1938, Alex Osborn, the O in the famous American advertising agency BBD&O, coined the term “brainstorming” to describe the ideation sessions he ran with his employees to “use the brain to storm a problem”. Presciently, he noted in the early ‘50’s “brainstorming became too popular too fast with the result that it was frequently misused. Too many people jumped at it as a panacea then turned against it when no miracles occurred. Likewise too many have erroneously regarded group brainstorming as a complete problem-solving process, whereas it is only one of several phases of idea-finding; and idea finding is only one of the several phases of creative-problem solving.³”

In 1948, Dr Sidney J Parnes with Alex Osborn launched the Osborn-Parnes Creative Problem Solving Methodology, the basic foundational creative thinking skills method. The Creative Problem Solving Methodology operates on the premise there are two types of creative thinking - divergent (generating lots of options) and convergent (judging options and making decisions). This methodology evolved out of Osborn’s unhappy experience with brainstorming and is a far more rigorous and defined approach to problem-solving. In the same year Parnes and Osborn produced a week conference and training programme introducing this new method for problem solving to the world of business – a conference that has now been running for 53 years consecutively⁴.

In 1950, J. P. Guilford’s famous “creativity” address to the American Psychological Association popularized the topic amongst American business executives when he proposed individual creativity could be psychometrically measured and the results applied for improved results in the work place.

In 1954, Alex Osborn financed, wrote, edited, printed and published 2000 copies of “Applied Imagination: Principles and Procedures of Creative Problem-Solving” which he distributed as gifts to his advertising agency clients. In what is now considered the classic text underpinning

² Wallas, G The Art of Thought, NYC: Harcourt-Bruce, 1926

³ Osborn Alex, (1954) Applied Imagination Creative Education Foundation Press Chapter 12 P 151

⁴ [The Creative Problem Solving Methodology Conference](#) is known as CPSI (pronounced Zip Cee) is recognised as the longest running creativity conference in the world. It was held for 50 years at the Buffalo Campus of the State University of New York and returned to that venue after three years absence in 2010.

the rise of creativity and creative thinking in American capitalism⁵ post World War 2, he above all other American writers and theorists of the time articulated the American dream when he wrote

“Competition has forced American business to recognise the importance of conscious creative effort. So much so, that more and more, heart and center of almost every successful manufacturing company is its creative research. Industrial research used to do but little more than take things apart in order to find out what caused what and why. The new research adds to such-fact finding a definite and conscious creative function aimed to discover new facts, arrive at new combinations and find new applications”⁶

Using the royalties from Applied Imagination, Osborn founded the Creative Education Foundation in 1967 at the State University of New York, Buffalo State in 1967 - still the only Masters in Science programme offered globally on the study of creative behavior. The Academic Journal of Creative Behavior has been publishing quarterly articles and papers from this programme since its inception as well – 40 years of continuous publication of academic publications on creative behaviors.

The maturity of this field was revealed in 1992 when Dr Parnes edited and launched an anthology of essays under the title “The Source Book of Creative Problem-Solving: A Fifty Year Digest of Proven Innovation Processes”. The anthology traces the history of the development of the creativity movement in Western thinking post World War 2 to the turn of the 21st century. Parnes purpose in publishing the anthology was to provide an historical perspective on “the stages in the progress in the deliberate development of creative thinking” and he listed them as such

1. 1940's – a cry in the dark
2. 1950's – the hope and hunch stage
- 3 1960's – the research, replication and report stage
- 4 1970-s the widespread application stage
- 5 1980's – the mainstream application”⁷

⁵ Osborn, A Applied Imagination, Creative Education Foundation Press , 1954 - Imagination Made American, Chapter One, p3

⁶ Osborn, A Applied Imagination, Creative Education Foundation Press , 1954 - Imagination Made American, Chapter One, p4

⁷ Parnes, Sidney J. Edited by The Source Book of Creative Problem Solving, Creative Education Foundation Press, 1992 Chapter One Historical Perspective p1

The book contains 50 essays, one from each year from 1950-1990, Dr Parnes considered the best annual contribution to the field of creativity and innovation in any field.

Outstanding highlights are Abraham Maslow's "Emotional Blocks To Creativity" – the complete notes from a speech Maslow gave in 1957 to a Creative Engineering Seminar, US Army Management School, Fort Belvoir, Virginia USA in which he outlines for the first time in an organizational context, as opposed to an academic one, the importance of creativity in self-actualising. He ends his address by posing the challenge "we'll all have to find some way of permitting people to be individualistic in an organization"⁸ and concludes "I don't know how it will be done. I think it will have to be a practical kind of working out, just simply trying a little bit of this and a little bit of that and trying out the other and finally coming to some kind of empirical conclusion."

From the year of 1969, Parnes selected the British physician, Dr Edward deBono's essay "Information Processing and New Ideas – Lateral and Vertical Thinking" because it added a refreshing approach to his and Osborn's divergent and convergent thinking model. deBono's stood apart from Osborn and Parnes by adding 4 new general techniques – awareness, random simulation, alternatives, alteration – to the creative thinking process, declaring these new techniques meant "vertical thinking is concerned with digging the same hole deeper. Lateral thinking is concerned with digging the hole somewhere else".⁹

Perhaps the most relevant essay contemporaneously is General Electric's Physicist-Artist Ned Herrmann's contribution, his 1978 essay entitled "The Creative Brain". The essay details the thinking and content behind one of the world's first organizational creativity programmes for executives. Herrmann began his essay "In my search for my place and work, I made some remarkable discoveries about the human brain...what I found was an explanation of the double existence I had been leading most of my life – with one foot in the world of big business, the other planted just as solidly in the world of art and music. The insights into the brain acted as a mirror that showed me who I was and why I behaved the way I did."¹⁰

What is particularly valuable about this essay is Herrmann's description of a Eureka moment – the brain acting as a mirror. He describes a 35 mile journey in a car during which he explores his continuing frustration with the images of a physiological map of the brain with its

⁸ Maslow Abraham, Emotional Blocks To Creativity, The Source Book of Creative Problem Solving, Section 11 P104

⁹ deBono, Edward, (1969) Information Processing and New Ideas – Lateral and Vertical Thinking The Source Book of Creative Problem Solving Section 29 P 246.

¹⁰ Herrmann, Ned (1989) The Source Book of Creative Problem Solving edited by Dr Sidney J Parnes Selection 28 p 229

seemingly useless left brain/right brain definition as a diagram and then he has the sudden epiphany of the map as a visual metaphor for the brain as a quadrant of thinking styles.

In his research during the General Electric executive creativity programme Herrmann had collected sufficient data to identify four individual thinking styles – analytical, sequential, interpersonal and imaginative. He recognised if he could map the data collected onto a visualisation of the brain he could use an image of the whole brain as a metaphor for creative thinking. and in so doing compare the four individual thinking styles. The result the Herrmann Brain Dominance Instrument (HBDI), a diagnostic tool still used extensively to-day in organizations to measure and assist individuals to identify their preferred thinking style preferences.

Herrmann's metaphor for the creative brain has become the inspiration for the 21st Century concept of whole brain thinking made popular in Daniel Pink's book "A Whole New Mind – Why Right Brainers Will Rule The Future" (2006) in which Pink proposes the world is moving from the information age to the conceptual age (an age that requires creative rather than logical-analytical thinking) and for much of the current theoretical work being pursued in the emerging field of neuroscience.

So with that history, that breadth and depth of academic research, the question has to be asked - why is creativity not better understood as an organizational or business process after over a century's worth of study and contemplation? What has caused CEOs to focus their attention on "creativity" as a potential solution to organizational or business complexity now and how do we "operationalize" creativity in a business context?

Are Australian managers creative and innovative?

In 2008, as part of a study carried out by the Creative Leadership Forum to seek answers to these questions, I designed a major national research project entitled "Are Australian managers creative and innovative?" with the purpose of discovering Australian managers perceptions and attitudes towards creative leadership, creativity and innovation in practice and the type and nature of organizational education, training and learning experiences that informed their opinions and beliefs.

The survey, with the support of peak industry bodies including the Australian Services Roundtable (ASR), Innovation and Business Skills Australia (IBSA), The Society for Knowledge Economics (SKE), The Leadership Consortium, The Australian Facilitator's Network, InformationXChange Australia (IXC) and the on-line journal FastThinking, reached

approximately 30,000 Australian managers attracting 331 completed surveys. In addition, I carried out in-depth personal interviews with 25 C+ plus executives.

The outcome, a report “Are Australian Managers creative and innovative?” was launched at the Annual General Meeting of the Australian Services Roundtable in November 2008 and the office of the Federal Minister of Innovation Industry, Science and Research, the Honourable Senator Kim Carr instructed the Federal Department of Innovation Industry, Science and Research to incorporate its findings into its policy thinking on innovation in the workplace.

The research findings offered some significant and surprising insights into how managers perceived creative leadership, creativity and innovation, none more so than in the area of educating for creativity in organizations.

Australian managers nominated the main attributes of creative leadership as empowerment, enlightenment, enjoyment and risk. They drew a profile of a creative leader as some-one who was a visionary and a team player, a risk seeker who enjoyed work. When asked what a creative leader does the overwhelming result said a creative leader is one who leads people and processes creatively (97%) as opposed to a creative leader being an individual who creates (45%).

What this finding suggests is that leaders in organizations do not perceive creativity as something they do. Instead it is something they think about and co-ordinate. Creativity by its very nature requires action and context, is constructed around constraints and evolves out of practice. It is identified through perception, named creative by someone other than the person practicing it.

Further, the naming of something “creative” is a subjective act, generally comes from peers and requires confidence, knowledge and expertise in the domain in which the creativity occurs on the part of the namer. Importantly, creativity, even in perception, is subjective, only ever approximates reality and can easily be disputed.

Management theory and business school studies may offer a framework for managers to understand organizational creativity as a concept. However they cannot create the act or phenomena itself. It is only through the act of creation on the part of the manager that creative practice emerges and evolves. This, of course, is what 20th Century German philosophers Heidegger and Gadamer call a “hermeneutic circle,” that is through the very act of creating that creativity comes into being.

The first challenge then for educating for creativity in organizations is to locate and find methods and processes for leaders to use to identify, discuss, reflect on and make sense of their own practices of creativity, paying particular attention to the organizational context for their practice; to the constraints the organization places around that practice and to the practice itself.

The second part of this challenge is for the leadership to develop ways of synthesising the learnings and the knowledge gained from these discussions and reflections and to make them meaningful in an applied sense to enhance the organizations goals and objectives.

The overall concept of applied creativity and innovation in the workplace is viewed positively by the majority of Australian managers. Over 80% of Australian managers hold a broad definition of creativity, affirm they are creative and recognize when they apply their creativity. They accept creativity has many manifestations and uses and can be applied by anyone anywhere. Again the challenge here is to make the process of recognising applied creativity one of a specific inward reflection rather than a box ticking exercise of compliance for statistical purposes.

The most surprising result of the research was that 64% of Australian managers had received training in creativity. Initial response to this finding was one of disbelief based on simple anecdotal evidence. As at 2009, there were no courses being offered at graduate level within business schools in Australia on management and creativity. Certainly some business schools, University of Technology Sydney for example, offered short courses on brainstorming and ideation within post graduate MBA studies. However there was then and still currently there does not appear to be any comprehensive under or post graduate degree programme on creative leadership, creativity or innovation in Australia.

So how did 64% of Australian managers receive their creativity training, what did it entail and how did Australian managers rate it?

Almost without exception, they obtained their creativity training as part of another training experience eg as part of a sales and marketing conference, part of a software technological training process, as a single session within a management or leadership programme. Generally the programme content came from traditional creative thinking skills methodologies such as deBono 6 Hats, Lateral Thinking, the creative problem solving process, brainstorming and mindmapping. The average length of time of the training was half a day and when asked whether the training was effective on a scale 1 through 5 from not effective at all to very effective, 25% said not effective at all and 50% said they couldn't say whether it was effective or not. In other words, 75 % of the creativity training in organizations in Australia is ineffective.

Even if this training was rated as successful, the average length of time (half a day) taken, suggests a very perfunctory knowledge of applied creativity would be obtained at best. Malcolm Gladwell's in his book "Outliers" (2006) points out that studies looking at excellence in performing complex tasks requires a critical minimum level of practice of 10,000 hours in order to achieve the level of mastery associated with being a world-class expert in any field.

It can only be concluded that creativity training is viewed as tactical rather than strategic organizationally and something of a necessity in much the same way as compliance training or the introduction of a new technology platform is considered – a three hour training session after which you will be able to commence working creatively and if you have any further questions go to the FAQ page or consult the manual!!

Other forms of organizational creativity such as brainstorming or ideation sessions fit into the tactical category as they are designed to problem solve specifically rather than to view organizational creativity holistically.

To further complicate the issue, Australian managers believe they are able to apply creative thinking at work (82%), yet when asked whether their organizations are creative only 55% agreed.

Thus, Australian managers have a more positive view of their ability to be creative than their organizations ability to implement it.

In other words, the organization as a working entity itself often acts as an impediment to creativity and innovation.

And to add further fuel to the creative fire, Australian managers (61%) do not see creative leadership in the basics of business such as revenue generation, cost reduction or even the development of new products.

This disconnection between manager as creative leader and as business leader suggests managers are confused and conflicted about the value of creativity in an organizational context.

The critical challenge therefore in educating for creativity in organizations is to develop a model or method enabling organizations to perceive themselves creatively.

How does our organization operate creatively holistically is the question?

The Management Innovation Index

Organizational creativity does not fit simply around a linear construct or theory. Rather like a theatrical production, organizational creativity is the sum of all the parts involved in the organization's operation with the outcome being the organization in performance.

An organization's creative performance is based on four key building blocks - its culture and environment; the strategic thinking style of the organization; the practices of ideation and collaboration for strategic implementation and the individual and accumulative creative behaviors, knowledge, experiences, practices and actions of the organization's managers that are the actors in the creative performance.

In 2008, I partnered with Dr Ed Halteman of SurveyNDesign USA, a statistician and survey design expert and Sara Dunn, an economics graduate from University of Washington specialising in database design and statistical analysis to develop an index designed to measure an organization's creative performance relative to other organizations and to measure creative growth over time within an organization -the Management Innovation Index [™] (the MIX)¹¹.

The MIX consists of two parts - an on-line survey consisting of 37 questions administered on-line across all levels of leadership and management within an organization capturing leaders and managers perceptions of the existing creative performance of the organization and a subsequent report "The Management Innovation Assessment" that analyses and interprets the data by combining different statistical variables into a single composite number that allows one to compare variations and measure creative growth against a baseline value over time.

The report compares and contrasts the four key building blocks to establish the organizations current creative performance and uses a circular quadrant to position the current organization's creative inputs and flows against four standard organizational objectives - growth/revenue, cost benefits, new product/service development and business model innovation.

This information enables an organization to reflect, discuss and critique strategically AND tactically the trends, accumulative strengths and opportunities operating within a living breathing creative ecology – their organization. Using regressive analysis over time, an organization can start to predict against key measures the success or failure and value of types of creative skills development and training driving its creative ecology.

¹¹ The Management Innovation Index www.managementinnovation.net

The challenge then becomes will organizations in the conceptual age transition from regimented logical-analytical industrial age mindsets in the analysis of this type of data into a creative mindset in which the data offers a reflection on the practice in an organization's creative ecology, "the hermeneutic circle", that can be used to enhance and develop the practices which made the organization's existing creative ecology successful in the first place.

As a consequence of this new mindset, will this information enable the case for educating for creativity in organizations to be moved from an operational consideration, involved in developing an individual's creative ability where it now resides normally unengaged, to a business or organizational strategic consideration where educating for creativity can become a prime contributor to the organizational or business goals and objectives?

Summary.

History shows for leaders in organisations to consider creativity as an important strategic asset, to be willing to allocate time and resources to developing it as a key knowledge and skill competency capable of contributing to the overall success and productivity of an organisation and not just be considered a tactic to be used occasionally at an appropriate time, there is need for compelling arguments and hard data. It was Peter Drucker, the grandfather of management theory who said "What gets measured, gets managed".¹².

Creativity and innovation as phenomena are difficult to observe as they occur. They emerge out of the dynamics of action, practice and reflection and in the moment, not through theory and explanation. Whilst creativity is generally viewed as abstract, it needs to be viewed differently in an organisational context in order for it to be understood.

The Management Innovation Index is able to build a model of an organization's infrastructure and the creative behaviours that drive it. Subsequently and over time through benchmarking against the model, an organisation can measure its creative and innovative efforts and start to build a pipeline of continual creative and innovative activity specifically targeted to the organisations goals and objectives.

The statistician and management consultant, W. Edward Deming, the American generally acknowledged by the Japanese as the founding father of the Japanese quality management movement, when outlining in his last book *The New Economics for Industry, Government, Education*

¹² Davies, Eric J, What Gets Measured, Gets Managed: Statistics and Performance Indicators for Evidence Based Management, Journal of Librarianship and Information Services, Sept 2002

(1993)¹³ his System of Profound Knowledge proclaimed

"The prevailing style of management must undergo transformation. A system cannot understand itself. The transformation requires an outside view—a lens—that I call a system of profound knowledge. a map of theory by which to understand the organizations that we work in."

The Management Innovation Index provides that lens onto the organisation's creativity

¹³ Edwards Deming, W (2000) The New Economics For Industry, Government, Education, The MIT Press

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