

Managing Creativity from an Organizational Economics Perspective.

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Executive Summary

This paper explores the organizational dilemma of intangibility in innovation and the consequences of ignoring it; proposes a case for a systems thinking approach to organizational creativity to drive measurable innovation; reviews the importance of the emergence of the new field of organizational economics as a way of analysing organizations and offers a method for measuring and managing the impact of creativity on the key measures for success of an organization or business in 21st Century.



The Organizational Dilemmas of Intangibility and Creativity

Peter Drucker summed up the challenge of managing organizational creativity when he said "What get's measured, get's managed". It is impossible to measure creativity, I hear you cry. It's conceptual, intractable and intangible!!

In "How To Measure Anything - Finding the Value of "Intangibles" in Business", author Douglas W, Hubbard, a former management consultant with Coopers and Lybrand outlines this situation when he describes the tension he felt as a member of the organization's steering committee at which they were charged with accepting or rejecting new business investment proposals. The proposed investments ranged from IT to new product research and development, from major real estate development to advertising campaigns. What concerned Hubbard was the regular rejection of "soft" proposals. Proposals that contained language such as "reduced strategic risk" or "premium brand positioning" simply because they "were considered immeasurable".

As Hubbard states "It wasn't as if the idea was being rejected because the person proposing it hadn't measured the benefit (a valid objection to a proposal): rather it was believed that the benefit couldn't be measured – ever. Consequently some of the most important strategic proposals were being over looked in favour of minor cost-saving ideas simply because everyone knew how to measure some things and didn't know how to measure others. Equally disturbing, many major investments were approved with no basis for measuring whether they worked at all.²"

Hubbard highlights the fact that most companies see organizational creativity in a tactical light. We have a problem, let's call a meeting and come up with as many ideas as possible to solve it. Yet if organizations base their strategic innovation goals on ideation then the records show they do so at their own peril. Generating lots of ideas without first understanding the organization's economic resources, constraints and behaviours can result in a substantial waste of time with no apparent outcome, confirming the often negative experience of organizational creativity. Just another ideation workshop; nothing came out of the last one; they never follow through; a complete waste of time appear regularly in the

¹ It seems this aphorism has been attributed to Peter Drucker in popular management literature and is probably paraphrased from his book The Practic of Management (1954) in which he discusses Management by Objectives and the limitiations of that concept. http://en.wikipedia.org/wiki/Management_by_objectives ² How To Measure Anything – Finding The Value of "Intangibles" In Business, Hubbard, Douglas W. John Wiley and Sons Inc ISBN978-0-470-53939-2 Chapter 1 Intangibles and the Challenge Page 4



anecdotal responses to research collected from Management Innovation Index³ surveys on innovation effectiveness.

The Chief Information Officer of one of Australia's leading telecommunications companies recalls the expensive construction and application of an on-line suggestion box that was initially overloaded with ideas. The organization's management had not anticipated this response and had no real management processes or mechanism in place to respond to the deluge. Time poor as most senior managers are, meant decisions were deferred on how to deal with the ideas and in many instances no reponses were offered at all. Quickly the ideas stopped coming and the on-line system now sits idly and unused on the managers' browsers.

Worse, still, is the selection of the wrong idea to invest in, sending an organization or product on the path to oblivion looking bankruptcy in the eye.

Google's failed Google Wave project is an example.

The Rasmussen brothers, developers of Google Maps, convinced Google management they could repeat their successful efforts – this time in communications. Their initial proposition was vague – a new communications model that embraced all previous forms of digital communications – and overhyped from the very first press release announcing the project. Hotly pursued by Google, in their minds this was an opportunity to catch-up and domimant with their platform in a market cluttered with a myriad of start-ups and not properly serviced by Twitter and Facebook.

You only have to search the web to read the comments from users to discover how badly Google Wave failed⁵.

Most revealing is the press conference⁶ Google CEO Dr Eric Schmidt gave concerning, in part, Google's new product development process. When questioned about how it worked, he gave a far from convincing display appearing uncomfortable and tense at times in describing a very traditional innovation prototyping system. When launching a new product, we wait to see how well it is initially adopted, followed by the tracking of the correlation between the number of initial launch adopters and the number of new user

³ The Management Innovation Index www.managementinnovation.net

⁴ Google Wave: A Complete Guide. http://mashable.com/2009/05/28/google-wave-guide/

⁵ Google Wave: A Case Study on Why Interactive Design Matters http://joannejacobs.net/?p=1818

⁶ TechCrunch August 2010 Schimdt Talks Wave's Death – We Celeberate Our Failures http://techcrunch.com/2010/08/04/google-wave-eric-schmidt/



uptakes on the second iteration of the product to determine whether the product is going to work or not he summed up.

This is an astonishing admittance from the CEO of the world's leading digital technology company.

The Google Wave investment was hardly prototyping given that it engaged 60 software engineers, real estate and general administration to commence, launched in May 2009, dead in August 2010 and was based on a vague concept at best and could only be measured after it had been developed and launched.

Has the commercial world learned nothing from the 1980's to 1990's dot com crashes!!?

Co-incidentally, Google Australia reported a loss of \$3.08 million in its accounts for the 2010 calendar year.

Assistant Professor Karim R. Lakhani, Harvard Business School's article "Google Wave Decision Shows Strong Innovation Management" argues that as companies get bigger their latitude for employees to be creative is often unfortunately overtaken by more rigid management structures and more rigid philosophies. These more rigid management structures and philosophies act as impediments to organizational creativity rather than the facilitation of it.

Lakhani has captured the unsurfaced apprehension leaders of 21st Century organizations now face and will start to face more frequently.

The deep concern for leaders is whether it is possible to develop a systemic view of organizational creativity that is sufficiently coherent and accurate to offer them a meaningful way of observing and measuring the creative flow in the organization, in the process, enabling them to mitigate their risk whilst facilitating innovation successfully across a multitude of organizational layers and stakeholders.

The Case for a Systems Thinking Approach to Organizational Creativity

Identifying organizational creativity to measure it, though, as a concept is highly problematic. Metaphorically, an organization is a humanist environment driven by a series of accumulative behaviours – subsconscious in their formation like the brain and creativity

⁷ http://blogs.hbr.org/hbsfaculty/2010/08/google-wave-decision-shows-str.html



itself, constrained by a system that supports and directs these accummulative behaviours for the benefit of the organization's existence and common good.

To model organizational creativity, these accummulative behaviours need to be identified and defined so they can be measured. In addition the measurement to have any meaning needs to be economically and behaviourially cogent in context and reflective of the organization as a whole. The ultimate vindication being, whether through measuring organizational creativity, the organization will obtain a better knowledge of how it can become a more efficient, productive and successful innovator, the driving force behind all successful organizations.

It may seem odd the first clues in discovering answers to these dilemmas do not come from an humanities discipline where you might expect a discussion on creativity to reside but from the total quality movement (TQM) and, in particular, work pioneered by the American author, professor and management consultant, Dr W. Edward Deming during the post World War 2 industrial expansion of Japan.

Largely unrecognised in his native US until much later in life, Deming died in 1993 the same year, his most celebrated book The New Economics for Industry, Government, Education was published - a life time's work resulting in a management philosophy grounded in systems theory.

Deming's theory, which he called a system of profound knowledge⁸, consists of four parts: appreciation for a system, knowledge about variation, theory of knowledge, and psychology. Importantly, the underlying principle of his theory is that a system cannot understand itself and "any transformation (in it) requires an outside view – a lens – that I call a system of profound knowledge. A map of theory by which to understand the organisations we work in."

Deming proposes each organization is composed of a connection of interrelated processes and people which make up the system's components. The success of all managers and workers within the system is dependent on the leaders' capability to orchestrate the delicate balance of each component for optimization of the entire system.

Thus in conceiving of organizational creativity, the first essential is to describe the organization's creative system on which to focus the lens.

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⁸ The 14 principles of the Deming System of Profund Knowledge http://en.wikipedia.org/wiki/W._Edwards_Deming#The_Deming_System_of_Profound_Knowledge



Deming's concept of *The Appreciation of a System*⁹ which "involved understanding how interactions (i.e., feedback) between the elements of a system result in internal restrictions that force the system to behave as a single organism that automatically seeks a steady state" offers a focal point¹⁰. It is this steady state that determines the output of the system rather than the individual elements. Thus it is the structure of the organization rather than the employees, alone, which holds the key to improving the quality of output¹¹.

However, if the system's basic components are creative behaviours, notoriously chaotic, risky, uncertain, uncontrollable, intractable and intangible, how can we observe how these human elements combine to influence and cohere to produce a steady state of organization?

Whilst Deming was starting out on his journey of systemetising industrial production in Japan post World War 2, American sociologist C Wright Mills was expressing his concern about the potential of the corporation to dehumanise work.

In his book White Collar: The American Middle Class (1951) he contended that bureaucracies were now developing in a way that "overwhelmed the individual city worker, robbing him or her of all independent thought and turning him into a sort of a robot that is oppressed but cheerful. He or she gets a salary, but becomes alienated from the world because of his or her inability to affect or change it."

For Wright Mills, who was constantly trying to reconcile the individual and society, the ideal corporate environment was one in which "the labourer with a sense of craft becomes engaged in the work in and for itself; the satisfactions of working are their own reward, the details of daily labor are connected in the worker's mind to the end product; the worker can control his or her own actions at work; skills develop within the work process; work is connected with the freedom to experiment; finally family, community, and politics are measured by the standard of inner satisfaction, coherence and experiment in craft labour..'..."

This was a radical view at the time but could be the basic advertising copy for an employee job description for those wishing to join to-day's information, knowledge and technological industries.

⁹ The Appreciate of A System http://en.wikipedia.org/wiki/W._Edwards_Deming

¹⁰ The Definition of A Steady State http://en.wikipedia.org/wiki/Steady_state

¹¹ http://www.improvementandinnovation.com/features/articles/link-between-demings-theory-profound-knowledge-and-systems-thinking



60 years hence, Wright Mills description of the idealised environment in which an individual's creative endeavours can be recognized, expressed and encouraged is emerging as a vital consideration in the development and success of 21st Century organizations.

Important to Wright Mills thinking is the notion of experimentation in the work context and its importance to the worker's identity. Creativity is only ever understood through imagination (the what if) and experimentation (how) that in turn are driven by a loop of practice, implementation and perception and the conversations that occur around those perceptions of the original experiment.

Through this process, the sense of craft associated with an individual's work endeavours develops along with his/her understanding of their practice and abilities.

The lasting legacy of Deming's management philosophy is that it builds an important connection between the mechanistic and logico-rationalism of the world of systems thinking and the humanism of creativity. The lasting legacy of Wright Mills work is that it describes the humanity and value of the creative thinking process individuals can bring to their work in organizations in the 21st Century and the potential personal freedom that gives them and the organizations or networks within in which they work.

But wait!! There is a prominent voice from the past that is questioning our developing hypothesis.

Lord Kelso, British physicist and member of the House Lords, 1824 – 1827 speaks out fiercely from the floor of the chamber. "When you can measure what you are speaking about and express it in numbers you know something about it. But when you cannot express it in numbers, your knowledge is a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of science." 12

The Emerging Influence of Organizational Economics in Business

In the 1970s and 80's, a new breed of economists began to realise the neo classic view of economic theory based on the rules of a market economy was ignoring an essential component - the "black box" of production – the firm in which the capital and labour came together to produce the outputs for the market economy. With the rediscover of Nobel Prize winning economist Robert Coase's article "The Nature of the Firm" (Coasce, 1937),

 $^{^{12}}$ Quote from Chapter 1 Page 5 on Intangibles and the Challenge - How To Measure Anything by Douglas W. Hubbard



economists began to devise new analytical tools around concepts such as agency theory, transaction cost economics and game theory to develop "a collection of ideas and models, with the potential to be integrated, to guide managerial activity, and to inform organization theory and behaviours."

These new analytical tools initially focused on issues such as information asymmetrics (the study of decisions in transactions where one party has more or better information than the other), opportunism and behaviorial constraints as opposed to the tools of traditional organizational studies, with its sociological bias, that focused on such things as behaviorial norms, power and trust.

This new approach with its reliance on theory building and econometrics as opposed to the familiar mode of generalizing from empirical evidence and systemic data analysis was warmly welcomed by managerial theorists who were not unfamiliar with economics and the use of formal mathematical modelling to explain economic theory and were suffering criticism about their one-dimensional focus on theory and the use of case studies to support the theory.

What began to emerge at the turn of 20th Century was a way for managerial theorists, aided by this new science of organizational economics with a solid research foundation, to engage with their organizational studies colleagues supporting their empirical studies with economic modelling that could now emphasise and inform the interests of business directly with a new perspective.

Suddenly business leaders found themselves able to engage with organizational economists, and their partners, the econometricians, examining the tasks of motivating and coordinating human activity, exploring the nature and effect of efficiencies, the processes of creating, sharing and exploiting knowledge; designing incentives and contructing property rights and ways of disseminating and processing information that structured productive activities – all matters with the potential of adding substantially to an organization's bottom line in this new era of valuing and commercialising the intangibles of knowledge and information.

In his paper "We Give You Science: Organizational Economics and the Evolution of A New Management Science" Kevin Christ, Associate Professor, Economics Department of Humanities & Social Sciences, Rose-Hulman Institute of Technology sums the current state of play up nicely



"While organizational economic models have been enormously influential, we may not yet fully comprehend all the dimensions of their influence. It is now common to discuss changing organizational landscapes populated by new organizational forms in the world of business. Such discussions tend to emphasize network forms of organizations and the externalisation of employment relationships. It is also now common to apply the tools of organizational economics to explain the emergence of such organizational innovations. It is far less common to ask to what extent has organizational economics influenced modes of thought in the business world in ways that give rise to such organizational innovations." (Christ, June 29, 2008)

It is this author's proposition that by developing a lens of systemic organizational creativity through the theories and metrics of organizational economics, it is possible to determine an organization's steady state of creative equilibrium, the very thing that determines the success or otherwise of its outputs, in other words, its innovation.

A Method for Measuring and Managing the Impact of Organizational Creativity on the Key Measures of a Business

In a very practical manner, the impact of the level of creativity in an organisation affects its success. However, as discussed, creativity in a system is intangible, intractable, and unmanageable in the main, not easily understood, analysed or assessed. Rather like a theatrical production, organisational creativity is the sum of all the parts involved in the organisation's system with the outcome being the organisation in performance.

These parts can be broken into three elements.

The first is the organization's key measures for success and growth. In large organizations, this can be quite difficult to articulate but generally comes down to four categories - profit/growth; cost/efficiencies; new product or services development or business model innovation.

The second element is the building blocks around which these key measures for success are organized.

They are

- the organisations culture and environment and its expected state of readiness and responsiveness to creative directions and endeavours
- the organisation's strategic thinking and leadership styles embedded in the

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organization with its inherent strengths and weaknesses and its likeliness of either facilitating or impeding in a creative context;

 the organisation's current practices and capabilities in strategic and tactical organizational creativity

and

• the accumulation and variety of creative personal traits, beliefs and behaviours of the organisation's leaders and managers

How well these building blocks are understood, organized and supported by senior leaders defines the organization's capacity to be creative, to change, to adapt, to produce and to manage a system of continual creative outputs, the organization's innovation.

The third element is how well an individual manager perceives his/her opportunity, to productively contribute to creative inputs and how well these opportunities have been defined and communicated by senior leaders or managers. When managers are working at their best, creatively, they need clarity around

- Purpose I know why I am working on this idea and it has a real chance of being developed
- Motivation I am committed, passionate, ready to take a risk, go the extra mile to make new things happen and I am rewarded and supported in that endeavour.
- Orientation I am empowered to develop my own ideas, I know who to work with to advance them, I recognise where the constraints are around my ability to advance them and I am OK with that and know how to resolve it.
- Implementation my ideas will get implemented in some form or another.

Based on data collected through a survey administered across those engaged in the creative system, a model of organizational creativity called the Management Innovation Index ™ (the MIX) is able to isolate on each of the organization's key measure using the statistical methodology of regression analysis.

With a benchmark established by observing the impact of the statistical variable in a particular element on the organization's system of creativity (measured as its MIX score) on an organisation's key measure(s), a leader can focus in on a particular key measure (s) and deliberately design inputs and interventions, knowledge and skills development programmes to improve the statistical variable at a specific point of weakness in the system.

For example, if the key measure is profit and the Management Innovation Index's statistical variable for the organisational practice score, has been agreed a-priori, is 1200 and in need



of improvement, the Management Innovation Index would be able to predict that for each "point" the MIX score improves, the organisation would realize an additional \$1,200 in profit if the organisation changed nothing else except its MIX score. Thus, if the organisation could increase its MIX organisational practice score by whatever methods from .52 to .60, it could expect to increase its profit by \$9,600 (8*\$1,200).

Given the mathematical nature of regression analysis, the more observations there are, the more accurate the model of organizational creativity becomes. Frequently, the affects of improving creativity in a system are not felt right away. The ability to capture these affects in a model requires the collection of data over several periods. With each period of additional data, the accuracy of the model increases and a confidence builds in the design and development of creative inputs and interventions, the intangible and intractable suddenly have form and meaning and with the regular measurement of the system, management can ultimately begin to predict the innovative outputs of the creative inputs.

The biggest challenge for leaders once the intangibles of organizational creativity have been benchmarked and measured for value is how to manage, prioritize and emphasize their contribution to the organization against all the other processes and forms of measurement in which an organization is currently be engaged.

Don't expect innovation in an organization, if the lead indicators are driven by employee engagement or behaviorial attribute surveys.

These tools impede experimentation - the lifeblood of creativity and emphasize conformity - the death of it.

The Summary

Organizations conceived in the 21st Century will no longer begin with bricks and mortar peopled by employees sitting at desktop computers. In the dawning of this century, they are likely to be conceived as small teams of specialists working either as part of a large corporation the size of a small nation or drawn together through expertise in social networks and virtual worlds operating across cultures and time zones, both configurations connected mainly by technologies and knowledge flows.

It is against this nebulous background of connections and information that leaders will be asked to assess and manage knowledge needed to make these organizations successful and to develop their capacities and capabilities to continually innovate to make them sustainable.



Innovation is the sum of the outputs of a system's organizational creativity. The development of organizational creativity in a 21st Century organization is vital as it is its main mode of production. Organizational economics, through its study of management and co-ordination in organizations using metrics and mathematical modelling, has opened up new ways of making sense of the modes of production and how they can be applied to drive an organization's key measures for success.

The Management Innovation Index $^{\text{m}}$, a way of modelling an organization's creative system using regression analysis, benchmarks organizational creativity enabling leaders to assess the capacities of its creative infrastructure and the ways in which creativity flows within that infrastructure to produce innovation.

With the knowledge obtained through this benchmarking process, a leader can appraise what aspect of the organization's system presents the best opportunity for development, whether that is senior management executive development in some focused manner, technical training or a simple creative thinking skills programme. Over a period of time, as the effects of the development programmes start to influence the organization's creative system, additional measurement is able to assess the effectiveness of the interventions in the overall system.

There is much speculation about the types of skills and attributes future leaders of organizations or businesses in 21st Century will require in a globalized economy driven by the abstraction of technology that is becoming more and more complex, almost on a daily basis. Whilst the ancient and traditional leadership skills such as communication, motivation, the sense to act morally and justly and to be authentic in doing so, will remain important, the more successful leaders in 21st Century will have developed a new more cerebal and aesthetic skill – an ability to be able to see economic opportunities in the intangible in order to make them tangible!

Suddenly, Drucker's catch cry of the 1950's "what get's measured, get's managed" has real relevance!!



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