

CAROLYN EVANS

Carolyn Evans CSC is the Managing Director of boutique management consultancy ThinkEvans Pty Ltd. As a multidisciplinary team, ThinkEvans specialises in strategic capacity building and complex problem solving for clients in the public, private and not for profit sectors. Prior to founding ThinkEvans, she was a senior corporate economist and general manager, as well as being on the boards of various commercial and not for profit entities. After an early career as an officer of the Royal Australian Air Force, Carolyn was awarded a Conspicuous Service Cross in 1994 for services to Defence logistics.



TONY SPENCER-SMITH

Tony Spencer-Smith is Training Director and Specialist Writer at Sydney corporate editorial consultancy Editor Group. He runs Editor Group's training division, which provides writing and media training to corporate and government clients. As well as giving regular business writing courses, he writes and edits speeches and other documents for senior executives. Prior to joining Editor Group, he was a senior journalist. Following an early career at several major South African newspapers, he was later a senior executive with Reader's Digest magazine, most recently as Editor-in-Chief of the Australia and New Zealand editions. He has also had two novels published, one of which won the leading literary prize in South Africa in 1992.



Carolyn Evans was the project leader for *Inside the Innovation Matrix*, and Tony Spencer-Smith provided specialist editing services.

Introduction

TONY SPENCER-SMITH

Tony Spencer-Smith is Training Director and Specialist Writer at Sydney corporate editorial consultancy Editor Group.

Delving inside the innovation matrix, this book probes well beyond the surface of a word that is ubiquitous in current commentary. The insights achieved are key to fostering innovation, which is itself crucial to both sustained prosperity and positive social outcomes.

INSIDE THE INNOVATION MATRIX

Innovation does not spring from nowhere. It is a process embedded in a creative matrix of human interactions which give it origin and form. This book explores those hidden human dimensions.

The word innovation is ubiquitous in modern business and political life. Every organisation projects itself as innovative; every country strives to be innovative to compete in a world changing at a dizzying pace.

While there are many definitions of the word, few would disagree with the working one that it represents the bringing into being of something new and valuable. In fact the concept of the new, the novel, is at the heart of the origin of the term.

Because producing something new is a creative act, the emphasis in the past has been on creative individuals and the discoveries of science and technology. In a relatively linear model, a white-coated researcher comes up with a powerful fact or idea, and this is eventually turned into new products for the market.

As this book will show, innovation is far broader and deeper than that. The actual products of innovation are merely visible signs of the usually invisible innovation matrix. This book is a tool to help Australian business and the country as a whole to mine the secret riches of that matrix.

New dawn for innovation

These are exciting times for innovation in Australia. The new Federal Government has signalled in a number of ways that increasing productivity is one of its priorities, and that innovation is a key to that. It has even embodied innovation in its departmental structure, giving it pride of place in the title of the new Department of Innovation, Industry, Science and Research.

One of the first things the new government did was to launch an expert review of Australia's national innovation system in early 2008.

Speaking in March 2008 at the *New Agenda for Prosperity Conference* at the University of Melbourne, Prime Minister Kevin Rudd said the review had the "goal of making the changes necessary to foster greater innovation in research and development and build a stronger culture of innovation in business."

Then there was the emphasis on innovation at the *Australia 2020 Summit* in April. The initial report of the proceedings said productivity growth required "a world-leading education and innovation system", and listed the establishment of a national institute for innovation and creativity as one of the "top ideas".

These government initiatives are helping to give new impetus to the many private sector moves to enhance Australia's innovative capabilities.

The hidden human dimensions of innovation

Of course creative individuals are important, and some valuable new things do reach the markets and our everyday lives through a rigorous linear process of research and development. But in fact innovation is rooted in collaboration, networks and knowledge sharing.

It is these hidden human dimensions of innovation on which this book concentrates. It seeks to probe beyond the obvious, to look at ways in which organisations can operate in order to become truly innovative.

This is a book written by senior academics, consultants and business people. But however eminent the reputations of the contributors, the emphasis is on the practical.

While many of the concepts explored are quite complex, we believe that in all these papers there are lessons, ideas and guidelines that can help those running companies to foster innovation that adds value. That is where the other part of our working definition of innovation comes in. We are not concerned here with innovation for its own sake, but with innovation that builds prosperity and positive social outcomes.

Dipping a foot into the ocean of innovation

Because the matrix in which innovation functions – both within organisations and between them, within countries and around the globe – is so multi-faceted, no attempt has been made to squeeze papers into certain categories or push a certain viewpoint.

In the vast innovation sea, many different creatures abound. If this book throws light on some of them it has done its job.

To use another metaphor, think of flying at great height. The scene far below sparkles and dances, different features catching the eye in turn. You might not grasp the whole complex tapestry, but important aspects of it leap out to enlighten.

Each of these 14 papers speaks with a different voice. Many deal with networking, because innovation is in many ways a social and not a technical process. Others are more focussed on the way companies are structured, on their interior innovation architecture.

Many draw on the lessons of successful companies, in one case tracing the path of a single successful invention, in others being based on studies of many Australian organisations.

As an example of the latter, in *Innovation in Winning Organisations in Australia: Myths and Realities*, Graham Hubbard reveals the innovation lessons of a 25-year study of 11 top-performing Australian organisations. These findings show that many conventional views on innovation are myths, and provide a practical guide to innovating successfully to overcome the barriers many companies face.

How networks can increase net worth

Networks, so much part of the innovation matrix, come in many forms, many of which are examined in this book. They facilitate that flow of ideas, knowledge and people which Alistair Nolan of the OECD has described as “the oxygen for innovation”.

John Bessant in *Using Learning Networks as an Aid to Innovation*, reminds us that while innovation is a splendid competitive weapon, it is sometimes best fostered by collaboration. He says companies are increasingly coming together in learning networks to collaborate on a regional or technological basis. He emphasises the strong emerging strand of inter-firm learning, especially in supply chain development, and how such learning networks can be fostered.

Calling on organisations to cast the net even wider are Anand Kulkarni and George Bougias in *Australia's Diaspora Networks in the 21st Century: Winning the Hearts and Minds of the Overseas Innovation Class*.

They point out that Australia is well placed to capitalise on the increased international mobility of people that has led to a world of diasporas which have become an integral part of global knowledge flows. Up to now, they say, the emphasis in Australia has been on attracting skilled migrants, thus benefiting from the diasporas of other countries. This paper focuses on ways Australia can benefit from its own sizeable diaspora, such as drawing explicitly on the connections and networks of Australians abroad to forge long-term trade, investment and innovation linkages.

Mark Matthews and Bob Frater, in *How Intangible Networks Can Boost the Innovation Odds*, underline another type of network by telling the gripping story of how Radiata Communications beat international competition to the development of a new local wireless network, culminating in Radiata being bought by Cisco Systems for A\$567 million.

Like many companies striving to develop a truly new product, Radiata had to take on overwhelmingly low odds of success. It seemed irrational on their part, but they managed to reduce those cruel odds partly through tapping into the valuable knowledge built up by the radio astronomy and electronic engineering communities in Australia.

The authors say researchers and policy makers should not underestimate the value of intangible, informal networks like these in making such innovation processes possible,

even though the networks are hard to identify. The right balance needs to be found between these intangible networks and the formal legal and organisational structures that are also necessary to conduct research and innovation.

Other networks are geographical in nature, says Marcus Spiller in his intriguingly-named paper *Innovation: Your Place or Mine?* His argument is that the potential for innovation in a country is not evenly spread. One could draw up a map with certain areas marked as primary innovation nodes, because these are the areas serviced by the advanced business services that are important for innovation. He warns that to avoid a situation where few places besides Sydney and Melbourne can be innovative, a proactive policy approach is needed.

Then there are John Steen, Sam Macaulay and Tim Kestelle in *New Tools to Map and Manage Innovation Networks*. Their contribution is to emphasise that networks are not uncontrollable things which just happen. The powerful diagnostic tool of social network analysis, they say, means that executives and policy-makers can manage networks methodically, measuring the effectiveness of their efforts rather than using intuition and guesswork.

While most papers emphasise the complex ecology of innovation, one acts as a counterpoint by reminding us that there is still a vital role for brilliant individuals; for scientists and technologists able to mine the ore of reality for the truly new; for spending money on research.

The Heroes of Innovation? Scientists and Technologists in Australian Business, by Jane Marceau, Tim Turpin and Richard Woolley, based on research by the authors into the careers of more than 500 Australian scientists, states that they suspect that many are being lost to research at a time when they could be scientifically most productive.

Australia does not have a particularly strong record of innovation through research, and can ill afford such a loss. If you compare us with many other countries in terms of such measures as patents generated, we do not shine. So there would be definite value in spending more to ensure a strong population of scientists and technologists in business.

At the same time, it is worth emphasising that Australia's relatively low rating in the formal innovation stakes does not mean that we are not an innovative nation. The Australian Business Foundation's research over 10 years has shown that Australia has a strong record of innovating through problem-solving, through learning by using technology and through working with others.

This is the sort of approach emphasised in most of these papers, and it means Australia is well-placed to establish an even stronger matrix of innovation.

Rewiring organisations for innovation

How should organisations be structured so as to be consistently innovative? What DNA does an organisation need to be able to break the mould, to slip the surly bonds of repetition? A number of the papers look at different ways to do this.

Deloitte is a company well known for its innovative practices. Seeking to steal a march on its competitors, it has reinvented itself – in itself a process of bold innovation. Two of the papers in this book were written by Deloitte people.

Gerhard Vorster and Jenny Wilson tell us *How Deloitte Embedded Innovation in its DNA*. They say that nothing less than transformation at every level of an organisation is needed to foster innovation: attracting talented individuals and giving them the freedom to be different; setting up bold teams that cut across bureaucratic structures; and redefining relationships with customers, suppliers and competitors.

In the second Deloitte paper, *Learning from the Market in Triple Time*, Mehrdad Baghai, Giam Swiegers and Rebecca Watson describe the development of a highly innovative form of sales campaign designed to learn from the market. These Intensive Learning Campaigns have shown how complex organisations operating in mature markets can rapidly adapt and grow, innovating on the basis of what the market signals it actually needs.

Managing for innovation

What can managers do to foster innovation? According to *Managing the Innovation Faultline* by Verity Byth and Ross Honeywill, it is vital to take into account that there are two completely different types of employees.

They say seven years of Australian workplace profiling research have revealed that while some employees are natural innovators drawn to challenge, change and innovation, others are natural stabilisers drawn to hierarchies and the status quo. Using this simple yet powerful tool, managers can ensure that both types are able to give of their best and contribute to an innovative environment.

Factors Behind Successful Creative Project-Based Teams, by Leslie Butterfield and Dafydd Wyn Owen, is one of two papers which deal with the importance of project management. The authors give their recipe for building project management teams that break out of the tired old ways of doing things and come up with innovative solutions.

The other paper which explores this theme is *The Human Factor in Innovation Project Portfolio Management*, in which Catherine Killen, Robert Hunt and Elko Kleinschmidt show how project portfolio management capabilities can improve innovation decisions and outcomes. They present findings from a recent study of six successful Australian

organisations that highlights the importance of human dimensions in the establishment and evolution of these capabilities.

Karen Becker and Paul Hyland remind managers that innovation is as much about people unlearning set ways of doing things as it is about learning new ways to do them. In *Overcoming Barriers to Innovation by Facilitating Unlearning* they present a model to help managers oversee this neglected aspect of innovation at both the individual and group level.

Finally, every book like this needs a wild card. One of the papers, Oliver Freeman's *People, Scenarios and Innovation*, defies any kind of categorisation. Fizzing like a fistful of firework, it throws out a range of ideas, calls for radical new thinking and challenges fundamental premises.

Freeman's emphasis on scenario planning demands of innovators that they look at the alternative future worlds or environments they may have to encounter, thus paradoxically learning from the future and letting this influence the strategic innovation they create for their businesses and organisations today.

Always something new out of Australia

In its essence, this is a book about the ecology of innovation.

Scientists realised they understood little about the natural world without taking into account the complex web of life. The same is true of innovation. Think only of specific innovative acts, and the world of human interaction behind it will remain concealed.

We hope this collection of papers will help to bring those hidden human dimensions into the limelight, and make a contribution to Australia's goal of becoming a world leader in innovation.