

Understanding the rules of engagement

Global disasters: five key ways to avoid them

How to research ad imagery

The value equation of innovation

Michele Levine, Roy Morgan Research, argues that innovation gets nowhere unless it's supported by entrepreneurship

'Never doubt that a small group of thoughtful, committed citizens can change the world.

Indeed, it's the only thing that ever has.'
Margaret Mead (1901-78)

hy is the Microsoft suite more successful than Linux – the free, and some would argue superior, software platform – and Bill Gates one of the wealthiest and most powerful men in the world?

The answer is not about size. Today Microsoft is so large that its challenges are about managing perceptions of market dominance and monopolistic power. It is hard to recall when there wasn't Microsoft, but it was only about 25 years ago that Bill Gates began with the first computer programs for the emerging computerised populace. The answer is more about value-driven innovation.

Many have articulated their protocols for good innovation and good innovative practices relating to education, taxation, philanthropy, innovation communities, innovation policy, intellectual property, and so on. And many have sought to measure and benchmark the performance of organisations, countries and individuals. These have included such metrics, at national or corporate level, as:

- ▶ venture capital as a percentage of GDP
- ▶ public-sector research and development (R&D)
- ► dollars (or percentage of organisation revenue) spent on R&D
- ▶ number of patents applied for especially US patents
- scientific and technical articles per capita
- ▶ investment in new equipment as a percentage of GDP (or revenue)
- ➤ number of knowledge workers, researchers or people involved in scientific pursuits
- ▶ percentage of labour force with tertiary education
- ▶ take-up of new technology (for example, number of internet users).

These metrics, essentially R&D expen-

diture measures and 'input' measures, are tapping into interesting intellectual constructs – but none will guarantee value creation or real-world success. None has captured the elusive 'value' equation associated with innovation.

Thought leaders in this field of innovation have sought to understand and explain such related phenomena as innovation, creativity, knowledge, learning and problem-solving, in an applied sense within the broader context of the real world. Each provides valuable insight into this elusive value equation, and together they demonstrate that the traditional input metrics, with their heavy focus on R&D expenditure, are inadequate and, if we are looking to the future, potentially very misleading. The real debate is more dynamic and at once more fundamental and more practical - rooted in a society's or market's needs, wants and expectations; and more goal-orientated.

Elliott Jacques reminds us of the importance of 'a goal' in any human endeavour: 'The real meaning of movement in all living organisms ... is that of an organism's working in the world of action, toward the achievement of a goal that it has chosen to achieve.'

Professor Keith Smith of the European Commission Joint Research Centre points out that innovation is not just about 'new ideas', but rather is about 'economic implementation' of new ideas, and thus innovation must be based on market information. He warns against using a 'scientised model of innovation that stresses scientific discovery rather than learnings as the basis of innovation.' He goes on:

Given that innovations are economic implementations of new ideas then the use of market information to shape the creation of new products is central to innovation.

This is a more complex view of innovation; one in which ideas concerning markets are a framework for new product concepts. So that while R&D is important, it is seen as a problem-solving activity in the context of innovation processes, rather than an initiating act of discovery.

Dr Brendan Nelson, Australian Minister for Education, Science and Training, talks about the increasingly multi-disciplinary nature of research and specifically about entrepreneurship – about the need for a culture that promotes discovery, creativity and entrepreneurship:

The best research is increasingly multidisciplinary and heavily dependent upon being able to bring together diverse skill sets ...

The need to be skilled at capturing the benefits and knowledge, and at transferring the knowledge from researchers to users...

The challenge for policy makers in such a context is to foster a national culture that promotes discovery, creativity and entrepreneurship among its core values.

Philip Bullock, CEO of IBM in Australia/New Zealand, focuses on the role of innovation in problem-solving. He points out that invention alone is not enough, and highlights the importance of bringing together developments across multiple industries.

IBM understands the importance of raw invention. But we also know that invention alone is not enough. It is the application of the invention that is important. That is when you see innovation; in fusion of new developments and new approaches to solving problems ...

[Innovations] require not just one invention or discovery but the fusion of developments across multiple industries and fields ...

Now, more than ever, innovation is occurring within an ecosystem, with multiple points of intersection among business, government and academia.

Michael Dell, chairman and CEO of Dell Inc., on the successful Dell business model and strategic vision focused on the market and end user, explains:

We orientated ourselves around the end user, whether it was a big company or government or a small business, not around the products or the channel.





In summary, these thought leaders tell us that successful innovation is about goals and economic implementation, and is increasingly multi-disciplinary, multi-industry and market/user focused.

Each of these themes resonates – they make sense. It is about value. It goes beyond technology and innovation and embraces entrepreneurship. Indeed, I argue that, in the elusive value equation V=(T+I)E, technology and innovation are powered exponentially by entrepreneurship – to the point that without entrepreneurship, it is all academic.

Value: a changing paradigm

The relatively traditional paradigm of innovation (and the input metrics discussed earlier) may have been relevant in the past, but recent trends in a number of spheres have relegated such metrics and the underlying paradigm to at best indicative 'proxies' for value, and at worst, something resembling quaint obsolescence.

So let's look briefly at some of the trends that have changed the paradigm of innovation and its consequent value.

► Globalisation means that efficient sup-

ply is increasingly taking precedence over geographic proximity; global alignments are increasingly permeating all industries. This means that there are larger markets for those with desirable goods and services to access. However, as Andrew Michelmore, CEO of WMC Resources, says, 'Today the environment for investment, as well as for markets, is ruthlessly competitive, completely unprotected and totally unsentimental.'

▶ Technology has increased the speed and precision with which we do almost everything – from building a car or a highway to the speed with which new technology itself can be created. Technology, especially related to communications, has also increased both the complexity of information and the speed with which it can be transferred and processed.

These trends have made their way into the households and lives of average citizens. They are not futuristic musings.

The trends reported are specifically related to Australian data. However, they are relevant for most countries and are occurring faster in some and slower in others.

Changes in media, communications and technology

The last ten years have seen dramatic change in media (see Figure 1) – predominantly focused on internet take-up. In technology broadly we see the impact of mobile phones, internet and broadband, and an indication of fall-off of fixed-line telephony.

Plotting policy actions against these trends, we see some impact – for example, Telstra (Australia's original and largest telecommunications company) introduced peak and off-peak charges that appeared to hold up fixed-line telephony – but this was short-lived. The trend continued down.

Broadband price reductions in mid-2004 appeared to increase broadband penetration. But it was on its way anyway. Increased comfort with the technology is obvious – with substantially more Australians now agreeing:

- ▶ 'Computers and technology give me more control over my life.'
- ▶ 'I feel comfortable giving my credit card details over the internet.'

But those innovations that haven't 'hit the spot' seem to be waning, such as online grocery shopping. After an initial peaking of interest in 2002, it is now easing off.

In travel, holiday bookings online now outstrip travel agent bookings (Figure 2 shows the growth in online transactions). This is a major shift and has enormous implications for the industry. The other big shifts for the travel and tourism industry relate to security concerns associated with increased terrorist activity, and the shift in consumer spending to technology communications and housing mortgages.

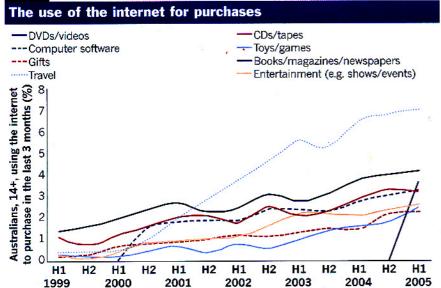
Domestic tourism is keeping pace with population growth, but as a proportion of household expenditure tourism hasn't done as well as other industries. The drive for more communications and technology has driven spending in such areas (see Table 1) as the internet (up 236 % in the last five years) and mobile phones (up 183% in the same period).

FIGURE 1 Media consumption changes, 1994-2004 Commercial TV viewing in last seven days Magazine readership last issue Newspaper readership in last seven days Radio listening last seven days Visited cinema in last four weeks Access the internet at least monthly Watched pay TV in last seven days 90 80 % of people, 14+ 70 60 50 40 30 20 10 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004

Source: Roy Morgan Single Source Australia, 1994-2004

innovation





Source: Roy Morgan Single Source Australia, 1994-2004

Essentially what all of these trends tell us is that technology, and particularly communications-based technology, is putting people in charge, and people are seeking more and more of it.

Some slow but fundamental shifts are emerging in the Australian psyche. Australians are becoming more open to new things. There are now more Australians attracted to new things than cautious.

And Australians are seeing themselves as more socially progressive and less traditional (see Figure 3). These are big, solid shifts. We are dealing with many hundreds of thousands of interviews (50,000+each year). The trends are real.

Empowered consumers

Much has been written about how technology and communications have empowered the consumer – putting choice at their fingertips, allowing price comparisons to be made online from home, and enabling consumers to do their own research about any product,

service or company, and generally to become more savvy as consumers.

Less has been written or discussed about how technology is empowering the user to become an inventor, creator, integrator or innovator. Essentially today, almost anyone with an idea can innovate and develop, test and perfect the idea. And increasingly people are doing just that, and sharing their ideas and developments with others in knowledge and innovation communities.

The demand for, and supply of, quicker information access to provide insights based upon more global, more integrated, more relevant, more reliable and more timely sources of comprehensible data is framing a total shift in the use of intellectual property.

This is a very different innovation paradigm from the one that equated knowledge production to the rarified specialist function of research and development, undertaken by those devoted to specialist invention and innovation. The value relationships are at once more subtle and more complex.

Roy Morgan International is in the information business. In our business, globalisation means that efficient supply is increasingly taking precedence over geographic proximity; for instance, telemarketing, data capture, processing and analysis from low-cost Asian countries; analytical frameworks, models and information products applied globally. While on one hand this means we can operate a global business from Melbourne, on the other it means competition is ferocious. Global alignments are increasingly affecting us and our clients, partners and suppliers.

Today, with internet technology, anyone – even a schoolchild – can conduct a survey. Moreover, technology has increased the speed and precision with which we do almost everything – from the technology for collecting, analysing, reporting and disseminating information, to the speed with which new technology itself can be created. Technology has also increased both the complexity of information and the speed with which it can be transferred and processed.

Who would have thought when Roy Morgan began asking the population their views about 'Equal pay for men and women' (the first Gallup poll conducted in Australia in 1941), that the information business would one day be a multi-billion-dollar global business.

We began in the 1940s asking questions, counting, sorting and analysing the results and then reporting the findings. Today, the business is very different (we still capture data, but surveys are just one input – the data can come from customer records, sales records, security-system logs, financial transactions, and so on), but the fundamental values are the same. We believe three things are crucial for any successful creative process:

- ▶ information the real, accurate facts
- ▶ the ability to make sense of these facts (analysis, synthesis and interpretation)
- ▶ new ways of thinking.

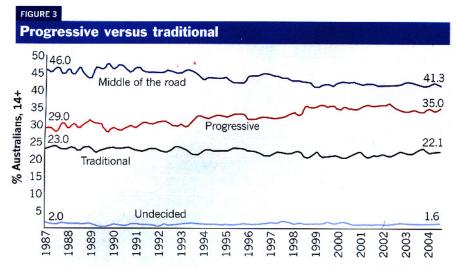
This belief drives our business — and has given us the courage to enter the lucrative but over-serviced US market, and the important Asian market. So we are also in the global information business

▶ We are small in the global arena. We have some 400 employees, while one of our major competitors employs more than 57,000. In the information market in which we operate, we are a minnow. When we were in joint-venture with ACNielsen in Australia some 15 years ago it likened Australia to a 'rounding error'

TABLE 1

Changing spending habits		
Product and service	Weekly household expenditure 2003/04 (\$)	Change from 1998/99 (%)
Internet	0.94	+236
Mobile phones	12.36	+183
Mortgage interest		
payments	38.24	+47
Education	16.32	+41
Childcare	4.78	+34
Health insurance	17.66	+34
Petrol	29.72	+26
Landlines -	16.42	+15
Travel	45.36*	+14*

Source: Australian Bureau of Statistics Household Expenditure Survey, 2003–04
*Note: Weekly expenditure per person, 14+, in 2004/05. Change is from 2000/01. Sourced from Roy Morgan data.



Source: Roy Morgan Single Source Australia, September 1987-June 2005

on its global budget.

- ▶ We grapple with human capital issues. The cost of people represents over 60% of our revenue. But the real issues are about how we balance engineering excellence with financial imperatives and new market optimism.
- ▶ We are in the business of creating solutions (to our own problems, to deal with our clients problems, and to create solutions to problems that are not yet presenting as problems).

So, Roy Morgan International is a microcosm of the issues associated with innovation. It is of great value to stand back and think about what it is we are doing as a company – a meta-view – to read about innovation, and think about it, not just be immersed in it.

The national issue

It is similar for Australia, New Zealand or any other small, 'clever' country.

In 1998 at the Melbourne Convention – Federation: Into the Future – Professor Les Holmes (1) challenged Australia to have vision. He asked, 'Why can't we be at the forefront of change rather than lagging behind or just keeping up with the real leaders in so many major areas? Haven't we more innovations to offer the world than compulsory seat-belts and booze buses?'

The answer, of course, is we can, and we must.

Many Australians fear Australia has been left behind, lost the opportunity. Every other country that benchmarks itself against the traditional input metrics with their heavy focus on R&D spending must feel the same way.

Associate Professor Jonathan West of the Harvard Business School says, 'Australia missed the boat on the information technology revolution.' He claims, 'If you don't own the technology, you will pay the vast majority of the profit to those who do.'

Some fear Australia is simply not large enough to have the muscle, the money or the people to have a viable leadership position in the global innovation game.

This must not be so, and the clue lies in an understanding of what might be called the 'value equation of innovation': V=(T+I)E. It takes technology and innovation and entrepreneurship. And the real value equation recognises that entrepreneurship has an exponential effect.

To ensure that value is the sum of technologies and innovations powered by the degree of entrepreneurship, a number of factors must be taken into account:

- ▶ identifying and understanding the value associated with technology innovation, now and into the future
- ▶ recognising the dynamic nature of this value context – that is, that it is evolving and changing
- ▶ being part of the process of innovation and capturing some of the value.

Ever-improving technology and communication is increasing Australia's efficiency in many industries. For instance, in mining and exploration new methods of surveying including satellite aerial photography, more sophisticated computer modelling of ore bodies, larger more cost-effective plants, new methods of extracting gold, and so on. In primary production, Australia has genetic engineering, sophisticated land management and farming techniques, and Australians are arguably world leaders in wine-making technology, to the bewilderment of France and Germany.

This kind of change, continuous improvement, has itself become almost a constant. Australia is a leader in many of these areas.

Today, with change in abundance – especially in the area of supply, demand,

distribution and services – more than ever before Australia and any other small 'clever' country, must create and develop its own market. Australia can no longer rely on overseas customers or intermediaries to create and drive demand for its products and services. They have their own priorities and problems. And we would argue they are no better placed than Australians to deal with uncertain, changing times, or to capture 'a fair share' of the elusive value.

This is no time to stand still – or to do 'more of the same'. The combined impact of globalisation and communications/ technology has weakened the boundaries that separated industries. There are many transformations that have emerged from this – for example, a credit card is now, in many ways, doing what a bank does; a gas or electricity company that installs a direct line to its customers is potentially in the business of telephony; a manufacturer plus the internet can be a retailer. The information revolution is not over. The new era creates opportunities and threats in abundance.

Andrew Groves introduces the concept of 'strategic inflection points' in his book *Only the Paranoid Survive*. He points out there are winners and losers, threats and opportunities in times like these. Grove explains that, managed wrongly, a strategic inflection point can mean the end of the game. Managed right, it can turn into a powerful force.

Paul Saffo, director of the Institute for the Future, says Australia has 'the thing that money can't buy — entrepreneurs'.

The trend towards 'free revealing', articulated by Eric Von Hippel, advantages Australia, and any other small 'clever' country. We also have a unique advantage in Australia: having never been as ideologically focused as the US or Europe, our minds are less conditioned to think within certain channels. And Australia is inherently good at clever solutions.

So why is Microsoft more successful than Linux? Those who argue for metrics might count the patents applications and knowledge workers and dollars spent on R&D. There is no doubt Microsoft would beat Linux on each of these metrics. But that's not the real reason; Microsoft was built on entrepreneurship. Good technology and innovation powered by entrepreneurship – it went out and got the market.

 L Holmes: Australia, globalisation and the third way. The Melbourne Convention – Federation: Into the Future, March 1998.

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