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FIRST GLANCE

A letter from the editor-in-chief.

Even in his wildest dreams Grant Kearney could not have foreseen how it would explode. I refer to the InnovationXchange (IXC) Network, a large and rapidly growing networked innovation community based on its unique Intermediary service and a web portal, devoted to spurring innovation throughout Australia.

Originally launched by the prominent Ai Group and its charitable education trust, the Ai Group Tyree Foundation, with funding from the Howard government's ambitious "Backing Australia's Ability" program and support from the NSW, Victorian and Queensland governments, it now boasts hundreds of member and partner organisations - IBM, Electrolux, BMW, ResMed, Johnson & Johnson Research, UNSW and more than a score of universities and many other government agencies among them. IXC is a model of innovation itself, which brings ideas, people, research, IP, and money together via its Intermediaries, the web and through a mushrooming number of events and seminars.

Lead by founding CEO Grant Kearney, IXC's models for idea sharing that result in concrete new business opportunities are so novel and effective they're being exported now to the

US. An IXC Intermediary has been deployed in San Francisco, with IBM and other Fortune 500 companies on board as founding members. Less than three years old, IXC is a true Aussie original of which we should all be proud. At its inception, IXC launched a small magazine devoted to innovation, *Fast Thinking*. Our media company, ETN-COM, was invited to take a long-term management role of the magazine, based on our two decade devotion to publishing on innovation, business, management, education, finance, science, leisure and the arts, plus an obsession with promoting the best of Australia.

Our shared goal? To dramatically enlarge and expand the publication into a national, newsstand and subscription-based quarterly of the highest quality. To provide access to many of the nation's finest thinkers on the subject. To motivate and to excite.

We will help companies small and large improve their innovative practices — on all levels; R&D of course, but across all disciplines. We will amuse, delight and inspire our readers. And we will provide practical reader pay-off, at the office and in life. Above all, our aim is to help

drive what I believe is the single most important phenomenon in our culture today - the active engagement between our business, university and government sectors, a burgeoning and productive interaction which will make our future happen. We already possess a significant segment of this vital audience from IXC.com.au and *Fast Thinking*, version 1.

We conducted national research and found the appetite for such a publication on innovation with a varied article mix to be far larger than expected. This is what we have supplied to you.

Please join the mission. Please subscribe. Send us your views - and we will respond. Please become a partner - the benefits abound, in print and on-line. We're in for a great voyage together. Welcome aboard!



John Keeney
Editor-in-Chief



SECOND GLANCE

A letter from the editor.

Innovation can be an elusive beast. Everyone wants to do it, everyone says we need it, everyone knows we benefit from it, but actually encouraging it, recognising it, capturing it and implementing it can be as ephemeral a task – and as exciting – as putting lightning in a bottle.

At *Fast Thinking*, we approach innovation as a process in three stages:

- Conception – the creation of innovative concepts and approaches
- Application – from activities in business, academia and government sectors to personal and group development
- Outcome – growth and progress through product and process development, improvements in productivity and efficiency, and attitudinal change

Fast Thinking will cover all of these stages with practical, usable and inspirational editorial – feature articles, regular columns, profiles, advice, review items, and opinion pieces – that we hope you will find both essential and compulsive. But the innovation will not stop at the content. We intend that *Fast Thinking* will be something different, not your average business journal, not your normal lifestyle magazine,

but a practical and thought-provoking read for those who are at the forefront of innovative thinking in Australia ... and for those who want to get there, wherever they are, whatever field they are in.

I won't go through the contents of this particular issue, as I am sure you can read the contents page for yourself. But I will take the opportunity to point you in one particularly direction, and that is the "At Large" essay by Prof Peter Farrell, towards the end of this issue. Peter has written the first in what we intend to be a regular series of articles by leading innovators and policy makers, and as such has set a high standard for others to follow. We intend that *Fast Thinking* will be as informed and informative as Peter's article, and just as contentious.



Tim Mendham
Editor

Inside the AIC

This new-look edition of *Fast Thinking* contains an added bonus of special interest from one of our sponsoring partners and contributors, the Australian Institute for Commercialisation (AIC). This organisation has rapidly pursued an important mandate of urging and facilitating commercialisation across the country. You'll find *Inside Commercialisation*, a 16-page insight into the work of the AIC, vital reading for startup entrepreneurs, large corporates, universities, R&D facilities and investment institutions. We welcome the joint efforts of the AIC in collaborating closely with us in this venture, and in working together with us to help raise the level of innovation outcomes in Australia.

Next Issue

Genius Awards: singling out fast thinkers
Anomaly: why shares fall when R&D works
Special feature: Blocks and Blockheads
- how to stifle innovative thinking



HOW TO SPOT INNOVATION

Environmental scanning is a technique that can be used to spot innovation, and know where you stand. **Marcus Barber** lays the ground rules.

Here's a thought you might like to consider – without a clearer and better informed vision of the future, it is impossible for you or your organisation to innovate. This section of *Fast Thinking* aims to improve your ability to innovate by improving your awareness of and preparedness for your future and the future of your organisation. The future isn't something that just happens - it is something you can influence and create. Being aware of the various tools and methods you can use to make more proactive choices about the world in which you live and the future you create for yourself means that you can take a deliberate and conscious approach to preparing for the future.

The 4 Ps of the future

Futurists use the idea of the 4 Ps to focus attention on the way in which options for the future are balanced against the likelihood of their becoming a reality. Any assessment you make about how likely it is that one particular option will eventuate is based on your *expectations* and *assumptions* and they rely on the quality and scope of information available to you.

The 4 Ps are:

1) The things we want to happen (*preferability*) will lead us to focus much of our personal efforts to improving the chances of a successful outcome.

2) There are things that we believe are *probably* going to happen. These are future events we believe, based on our awareness and understanding of available information, that are more likely to eventuate than not.

3) There are events that given what we know and all things considered we can accept that such an event is a *plausible* thing to consider. It is not as *probable* in nature but we have enough information to conceive that such an event might become a reality (depending on how the cards fall).

4) Finally we have *possible* future events. These are potential future events that, given a twist here and a diversion there, an addition here and a subtraction there could, just maybe, with a bit of a nudge and the wind blowing in the right direction on the right day, could, perhaps, come to pass. After all, anything is possible.

The 4 Ps then act as a means for you to segregate, compartmentalise or even divide your attention span so that you can start to deal with the important and more likely issues first and leave the rest to another time.

Warning - your future stops here

Often it is the things you don't pay attention to that are likely to cause the breakdown of your future. Remembering the probable and preferable perspectives, what happens if what you see as most likely to happen and what you want

to actually happen aren't in alignment? What then?

When a likely event and what you'd prefer aren't in alignment, considerable energy will be used attempting to change one or the other: you expend more energy trying to change the probable outcome or you change your preferred outcome to suit.

And here's where your future begins to break down, because unless your expectations are realistic and unless your assumptions are valid you will probably experience significant levels of stress and disappointment. The key then is to ensure that your expectations are realistic and that your assumptions are valid.

The question is "How?"

Assumptions and expectations - expanding your awareness

Expectations of the future are made more realistic by improving the quality and breadth of the information we have available to us. Assumptions of the future are made more valid by asking more critical and in-depth questions that go to the very heart of how we think about the future and why we think about the future in the ways that we do.

In making choices about how you plan for your future, you will typically rely on available sources of information to help you decide what you want, when you want to achieve it and how you intend to go about achieving a desired outcome. It will benefit you greatly then to expand your awareness by gathering more information sooner and by questioning all available information with more depth.

Gathering information

It is important to distinguish between the various forms of intelligence gathering. Alex Burns, the editor of Disinfo.org, suggests that there are four main types of intelligence gathering that an organisation can undertake. The first of these is business intelligence (BI). Business intelligence deals with issues affecting the day-to-day operational requirements of your business – staff resources, logistical requirements, legislative compliance and so on.

The next level of complexity is competitive intelligence, which is where you keep an eye on how your products or services are placed in the overall marketplace, type of industry activity occurring, historical trends in play and other information that takes a broader view of the industry in which your company operates. Within a competitive intelligence framework an organisation seeks to compare its offerings to the industry average to see where it is placed overall.

A more in-depth level of intelligence is competitor intelligence. This deals with a deliberate in-depth assessment of one particular competitor, its management structure and its likely strategic moves in the marketplace. Competitor intelligence aims to unpack the modus operandi of a competitor so that your organisation might be better placed to deal with their choice of strategic play.

Competitor information requires a substantially improved skill set. This is where you might look at a competitor's managing director or board to see what sort of moves they have made in previous companies for it is likely, that given

similar problems, your competitor's board will use similar resolutions and approaches.

The final level of intelligence is environmental scanning (ES). ES is the process by which you deliberately seek out and are open to alternative, disparate and random items of information – what futurists tend to call 'scanning hits'. Identifying these hits effectively means that an individual or an organisation has expanded its perceptual scope and its awareness of things that are happening 'out there' in the world. The wider your field of vision, the more sources and items of ES hits you will find.

Depth, breadth and distance - the art of environmental scanning

ES hits do not typically have an immediately relevant connection to your business. What you want to look for is the emergence of a series of hits with a similar theme. Even those these hits might derive from different locations or industries, so it is critical that you learn how to connect them in some way.

This analysis skill set is arguably the greatest asset that your company will gain from a deliberate use of quality ES, for it will give your management team the one commodity that they can never replenish once expended – time, and that time can be used to make better decisions and to develop innovative ways for dealing with change.

By conducting ongoing ES, your organisation begins to spot things well ahead of the mainstream. By the time a series of ES hits has become mere BI information, your organisation is already facing the expense and constraints of compliance. It will have no choice but to respond in order to survive.

Getting ahead of the curve or emerging cycle of change means significant competitive advantage can be leveraged. Simultaneously the organisation's risk profile is reduced because fewer things are available to surprise it. If your organisation is operating without conducting ongoing, critically assessed environmental scanning, it is in effect operating with blinkers on and will be prone to management-by-crisis operational strategies.

Removing those blinkers immediately opens up the breadth of available information and becoming open to alternative sources leads to a simple question – "what might this information mean for our business?" Answering that question automatically leads your business to dig deeper and looking further ahead, thus depth and distance is added to your organisation's strategic thinking capacity and its ability to innovate is enhanced.

How do you do it?

Discovering the hits is usually the easiest part of environmental scanning to learn. Simply "get outside the box" of the sources of information you usually use. If you rely on a daily newspaper, look to a weekly digest version instead. Turn off the TV and don't listen to the news. Mainstream media can only report current events. By the time something is a "current event", it's already too late to prepare for it and difficult to shape it – you can only react to it.

Look to areas of research in fields connected to your industry. Most university research departments publish updates of developments from their programs. Knowing in advance

that someone has invented a new fuel cell, or a rapid prototyping machine or a new form of syringe or whatever, might be an early indicator of a change in the way your company currently does business.

Consider talking to groups on “the edge” rather than mainstream. Many community action groups (also called communities of practice) have led to fundamental shifts in areas like compliance requirements imposed on organisations, the use of new technology, the availability of pharmaceuticals, and the acceptance of food additives among others. The Save the Whale campaigns back in the late 70s was a precursor to other things like Save the Franklin and since then this approach has morphed into more local issues like Save the Wetlands, Save Building X, No Fast Food in Schools and so on.

Communities of practice might also be on the leading edge of technology changes – think Napster, Grokster, MoveOn. Org and other world wide phenomena that have radically changed the use and purpose of technology. There are many others out there if you are open to them and they can be the source of great opportunity or anguish for your business.

The key thing to note from these simple ES scans is the way seemingly unrelated sources of information can be linked back to larger issues. In the first case an initial and potentially isolated hit showed that consumers were leaving certain fresh food produce on shelves. Perhaps this was isolated and meant nothing more. But what if the food left on the shelf had identifiable characteristics like sun blemishes on apples or spots on oranges? And what if the result was that supermarkets were discarding what was perfectly good fruit except for its outward appearance?

This leads to the next ES hit. In response to changing consumer choices and the expense of waste, supermarkets began selectively choosing the size, colour and appearance of oranges and apples. This forced farmers to group fruit based not on the quality of the food but on the appearance of that fruit. Because fruit that was visually blemished or under-size was now rejected by supermarkets, farmers needed to recover costs associated with that fruit.

That leads us to the next ES hit – increases in pesticides and fertilisers (to maximise growth and lower one source of visual blemishes) but at the same time, such actions decreased the insect population so vital in many cases to enabling pollination to occur.

More chemicals means fewer insects means less fruit means more fertilisers means more water requirements means a damaged water table means rising salt levels means salination of farming districts and large tracts of unproductive land. A cycle that may take 15 years can be linked back to what I call an advanced warning indicator. The key is to begin identifying those early warning indicators within your industry so that you have time to develop innovation to overcome potential future challenges.

STAGE		THEME: LAND DEGRADATION
NOW		Salinity makes large tracts of land unproductive
YESTERDAY		Lower productivity from farming, trees beginning to die-off
BEFORE		Chemical spraying increasing, fewer insects, higher fertiliser use
EARLY		Supermarkets demand product grading and size consistency
INITIAL		Consumers picking “unblemished” looking fruit first
STAGE		THEME: TAKE BACK LEGISLATION
NOW		Laws imposed forcing manufacturers to take back unwanted products
YESTERDAY		Industry body and lobby groups begin discussing end of product cycle containment strategies in response to government White Paper
BEFORE		Governments overseas introducing new legislation in your industry sector
EARLY		Councils overseas refusing to allow certain products into landfill sites
INITIAL		Communities of practice demanding action against end of use dumping

The table above gives two examples of how environmental scanning can uncover hits that, had they been paid attention to when first spotted, might have radically altered the strategic choices made at the time. I’ll work backwards from “now” to “initial”, suggesting how these things might have played out. Understand these are illustrative only – I am not saying that what is stated at the initial hit is the ultimate cause of the now.

Innovation and the future are inextricably linked. If you don’t seriously consider the type of future you want and the type of future that could be, it’s a sure bet that someone else’s innovation will create the probable future for you instead. The choice is yours!

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Summary

Use ES to expand your field of view and the landscape you will need to navigate in a strategic way by questioning the validity of your assumptions and improving the scope and breadth of information that helps you form realistic expectations.

Look for “advanced warning signals” in such areas as preliminary research reports, communities of practise and atypical sources of information. Get out of the box of information sources you rely upon and deliberately search out the “non obvious”.

Try to discover potential links between seemingly disparate sources of information – ask “if points 1, 2 and 3 merged, what might the impact on our industry be?”

IT'S AN INNOVATION



Innovation is everywhere – in your workplace, at home, at play. It plays an intrinsic part in improving business and organisational practices, in making processes more efficient, in boosting market presence, in generally making life easier and more exciting, and improving your personal and professional satisfaction. And wherever there is innovation, there will be *Fast Thinking*.

Fast Thinking is a new concept in Australian publishing – a quarterly journal that draws together reports on innovative activity from all walks of life, from every field of endeavour, reflects and comments on the impact and progress of innovation, and ultimately assists in driving innovation in the 21st century.

Fast Thinking is designed to be both practical and thought-provoking, inspiring and inspired, offering real-world services to an audience at the cutting edge of their personal and professional endeavours. In other words, *Fast Thinking* will be as innovative in its own right as its audience. You need to keep pace with innovation, which means you will need to subscribe to *Fast Thinking*. For your support, we offer you the spirit and essence of innovation.



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