

Seeing the Future in Weak Signals

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Over 40 years ago, Igor Ansoff (author of the first text devoted entirely to corporate strategy), described the important role that detecting and analysing weak signals plays in effective strategic planning. Weak signals are those ambiguous and controversial bits of information about the competitive environment that are typically hidden among the "noise" of the prevailing sense-making paradigm and that gradually coalesce to form a pattern of intelligence that alerts sensitive leaders that it may be time to change their game. In discussing how organisations learned (or failed) to adapt to a dynamic environment Ansoff wrote: "The evidence that a major change is needed is hidden among these other voluminous signals; it is not loud, clear and unambiguous, like the voice of doom, and it is not welcome information anyway" (Ansoff 1976: 69). Ansoff predicted that a gap of some years is likely between the time leaders first pick up new, weak signals and the development and implementation of a new strategy. A further gap of some years was predicted before organisational structure would be aligned with the new strategy. These gaps in an organisation's adaptive process can prove competitively fatal.

In recent years, the emerging field of futures studies has re-emphasised the importance of detecting and analysing "emerging issues" that are defined by information that is still uncertain, contradictory and on the

fringes of an organisation's data gathering and sense-making radar (Slaughter 1999: 256ff).

As the twenty first century unfolds, information flows are even more voluminous and the voices of stakeholder groups seem to be more diverse and more often in conflict than they were when Ansoff first wrote about the phenomenon of weak signals (or emerging issues) analysis. Signals today need to be persistently "loud and clear" before a watertight case for new investment and action can be made to the satisfaction of all interested parties. Consequently, leaders today may be even more reluctant to invest in nurturing the organisational culture, the human skills and the supporting technology necessary to ensure that they and their organisations are sensitive and responsive to the weak signals that may allow early identification of strategic opportunities or threats.

This paper explores the reasons why leaders often fail to "see the writing on the wall" and invest in preparations for possible futures that weak signal analysis can alert them to. It examines case studies of leaders who have acted on weak signals and thereby gained a march on their competitors. It then suggests a general course of action for increasing an organisation's sensitivity to the signals that can give early insight into future opportunities and threats. Finally, it notes some demographic shifts in the leadership population in Australia and other developed economies that may affect the speed with which the advocated leadership approach is adopted by

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the next generation of public and private sector managers.

Why do we tend to ignore calls for change?

Joseph Campbell (1993) in his book "The Hero with a Thousand Faces" has shown us how, from time immemorial, the hero in all the great stories found in all cultures around the world initially resists the call to adventure, the call to live their life in a significantly different way in order to gain something of great value in a world that has changed. The hero myth can be seen as a metaphor for how most of us act when faced with a call to live differently in a world that has changed in some way.

You have probably heard a range of learned experts give their views of the trends and events that are shaping the future in ways that will make life significantly different to the past. For example, Lord Robert May, Jared Diamond, Richard Hames, Richard Florida, Charles Handy and others have all addressed audiences around the world during the past year or so. You also may have read some of the many articles in the popular and professional media that discuss how the world is being changed by trends such as globalisation, disruptive new technology, the ageing population, downshifting, climate change, the economic rise of China and India, rising interest rates, increasing levels of debt, terrorism, avian flu, the new values of Generations X, Y and Z, etc. You will inevitably have been exhorted in one way or another by these external sources of news, information and advice to change how you currently live your life, manage your career or run your business.

The call for change may also be one that arises from within us (Wilbur 2000). For example, you may have gradually become disillusioned with the "lean and mean" work environment in which you have worked for many years (or that you have seen your parents work in). You may even have achieved many of your career goals and been left feeling: "is this all there is?". Or, you may have sensed that the

social fabric of your life is unravelling as terrorism instils a pervasive sense of threat in our lives, and racially-based riots disturb our sense of the kind of society we are living in and changes how we perceive ourselves in relationship to the people around us. Or, you may be getting older and realise that you have failed to develop yourself as a spiritual being and therefore have no inner resources to draw on as you come to grips with the prospects of dying.

But how much have you *really* changed in response to the mass of information you have received (from internal and/or external sources) indicating that change is necessary if you are to prepare successfully for the world of tomorrow – and if we collectively are to leave to our children and grandchildren the world we would wish them to inherit? How strongly have we resisted the call to adventure?

Resistance to change often is a result of our unwillingness (even for a short period of transition) to let go of the benefits derived from our current way of living: e.g., the highly paid job, the material trappings of "success", the status of being a high performer, etc (Bridges 1991, 2001). We dream of somehow grafting work/life balance, a sense of fulfilment, spirituality, fitness, inner peace, and quality relationships with family and friends onto the very lifestyle that keeps us from getting what we say is most important to us. It reminds me of the classical psychological experiment where a monkey reaches into a jar containing food only to find that he cannot withdraw his clenched fist through the neck of the jar and must first let go of that which he desperately seeks to have before he can enjoy it. I seem to recall that some monkeys are willing to starve to death rather than undench their fists.

However, in spite of our many attempts to resist calls for change in our lives, we may still be able to point to the ways in which our life (and the lives of people we know) is different now to what it was 10 years ago. So, in retrospect we know that we *are* changing. But, the processes by which we, as individuals, make significant changes in our lives as the world around us changes are still largely a mystery to us. We often cannot predict what will be "the

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difference that makes a difference"? What will actually cause us and the organisations we live and work in to break the current momentum and pattern of our lives and make significant changes in response to what we know of the future that is coming at us – a future that we all acknowledge will be very different to today?

One reason for our lack of change in response to information about the changing world around us may be that we are becoming increasingly desensitised to "information". This may be in part because we are bombarded with so much information today that *data* has lost its power to influence many of us. It may also be that we are finding it increasingly difficult to distinguish facts from spin. We may need the graphic, emotionally charged images of a highly visible and undeniable tsunami or terrorist disaster before we really become galvanized and contribute significant time and resources to a call for change. It may also simply be that we are so exhausted by the workload in today's lean and mean organisations that we have no intellectual or emotional space to properly come to grips with the task of adapting to our changing world. We are being trained and recruited, paid and promoted for killing alligators, not for draining the swamp!

Leaders must learn to act on weak signals

In a world full of myriad choices advocated by diverse stakeholders, many politicians and business leaders adopt the strategy of waiting until there is irresistible evidence of the need for change before committing time and resources to new ways of doing things. Indeed, the bigger and more disruptive (and the more financially or politically costly) the change involved in adapting to an emerging new future, the more likely it is that strong evidence for the change will be required before a decision to act can be justified to a corporate board, to a government, to the investment analyst community, to an electorate, or to oneself.

For example, for over three decades, governments, communities and businesses around

the world have been increasingly exposed to information about the nature and likely impacts of global warming as a result of the massive amounts of carbon dioxide that the developed economies have been releasing into the atmosphere since the time of the Industrial Revolution. This information has taken the form of scientific reports, web sites, popular books, advocacy from environmental lobby groups, and even graphic motion pictures such as "The Day After Tomorrow". These signals have been perceived by most of us as "weak" in the sense that they have been inconsistent, open to many interpretations and often rejected by credible people in positions of authority. Only now does there appear to be a critical level of consensus, at least among the scientific community, that the "facts" of global warming are genuine and need to be acted upon. However, the signals are still "weak" (i.e. confused, contradictory, arguable) as to how urgently we must all act to avert an environmental crisis of irreversible proportions.

In today's dynamic, complex and globalised business environment, the strategy of waiting for strong signals from the environment to tell us that change is necessary will not serve us well as a way of preparing for the future – and certainly it will not serve us well as a strategy for getting ahead of the competition. By the time we see the shape of the future writ large and undeniable we are likely to find that others are much better placed (either by luck or good foresight) to take advantage of it. We will also then have to learn the skills and acquire the resources that the future requires at a time when everyone else is also bidding for them. So, our costs of adaptation are likely to be much higher than if we invested much smaller amounts in preparing for possible futures that we can see in faint outline, defined by weak and possibly conflicting signals from the world around us. President Bush has hopefully learned this lesson in the wake of Hurricane Katrina where New Orleans could possibly have been saved from devastating flooding if levy banks had been raised by a few feet as experts had advocated over many years.

However, the skill of acting on and leading

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others to act on weak signals that may be coalescing into meaningful patterns has not been a skill that has been taught in our business schools or in our leadership development programs. In the future that is unfolding around us, this talent may very well be the hallmark of effective leadership.

We can already see rare leaders who are successful partly as a result of their ability to recognise meaningful patterns of weak signals and their ability to describe these patterns in ways that are credible and persuasive for all key stakeholders. When leaders recognise patterns of weak signals but cannot articulate the signals that they have noticed we call them "intuitive" and describe this as a "soft" skill. However, research has shown that "intuition" may be pattern recognition involving weak signals that are not yet strong enough to be described by the rational part of our brain which has a preference for dealing with strong signal "facts" (Breen 2000).

For example, when David Morgan (CEO of Westpac, a leading Australian bank) recognised the developing pattern of events and trends indicating that his organisation's target customers (and other key stakeholders) were increasingly likely to choose their bank on the basis of its involvement in activities that contribute to the welfare and health of the communities in which it operates, he committed the bank to a range of change initiatives that resulted in it winning awards for corporate social responsibility (CSR) in 2004 and 2005. These wins, and the ongoing new ways of doing things that led to them, may be helping Westpac to develop more rewarding relationships with customers, employees, suppliers, investors, etc.

There is no way that Morgan could point to *strong* signals that CSR would give Westpac a competitive edge. However, there is a coalescing pattern of (still debatable) evidence to suggest that he may have correctly read the emerging signals from the environment. For instance, research conducted by AMP Capital shows that the share price of companies with a higher corporate social responsibility rating outperformed by more than 3 per cent per annum over four

and ten-year periods (Anderson and Rey 2005). Other research suggests that Gen X and Y (and indeed the ageing baby boomers who have become alienated from their stressful careers) base their choice of employer in large part on the values a company holds and the extent to which they will be offered opportunities to create meaningful lives for themselves (Mackay 1999; Sheahan 2005).

It is indeed plausible that organisations will be increasingly selected and supported (by customers, employees, investors, communities) not just for what they do or what they earn but also, importantly, by what they stand for – by who they *are* and how they impact on people and on the world around them. Morgan clearly believes that it is worth investing in the probability that this trend will be significant – and that the costs of not investing now could be prohibitive for the bank in the future. The fact that CEOs in hundreds of organisations around the world are now participating in CSR networks, surveys and awards programs perhaps suggests that this set of signals has moved from being "weak" to being fairly strong (e.g. see www.csreurope.org and www.csrwire.com).

In the late 1980s and early 1990s, Netscape and Microsoft in America had different interpretations of the weak signals surrounding the birth and future development of the Internet and of the strategic importance of web browsers. In 1994, Netscape beat Microsoft to market with its browser and created a company that was bought out by AOL in 1998 for US\$4.2 billion. Microsoft was forced into a lengthy and expensive marketing and legal struggle to launch its own browser and overtake Netscape's market lead. Today, there is a whole new pattern of weak signals that Microsoft must interpret relating to the future impact of open source (or free) software such as the Firefox web browser created by the non-profit Mozilla Foundation. Mozilla was founded by ex-Netscape employees in 2003.

Another example: the "middle America" states that predominantly voted Republican in the last US Presidential election clearly have a different view to the coastal states that predominantly voted Democrat of the way that America

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should deal with Islam, the Arab speaking world, Iraq and "terrorism". As the leaders of each constituency argue their case before the American people, there has to date been relatively little dispassionate examination of the pattern of signals (mostly weak) on which each side is building its policy platform. It seems that when the majority of signals bearing on critical issues are weak then rhetoric and personality and emotional calls for loyalty and patriotism, and for unquestioning commitment to causes such as "fighting evil" are likely to be the dominant shapers of decisions. Later in this paper, I outline an approach to corporate governance that can avoid this outcome.

Another emerging pattern of weak signals appears to be showing that at least a significant minority of workers in major Western economies (and some studies suggest that it is already a majority of the workforce) do not like their work and are acting to minimise the toxic impact that it has on their relationships outside work, on their health, and on their capacity to explore and express their spirituality and other non-economic facets of their humanity. Table 1 lists some of the relevant signals in Australia that appear to be coalescing into a pattern showing that work today and the frenetic lifestyle that often goes with it is experienced as toxic by many people. Similar lists could also be prepared for America and England. This pattern may give forewarning of significant potential opportunities for organisations that take action early and significant threats for those that ignore the "writing on the wall". It may also be part of the reason why many large organisations are experiencing a shortage of talent (Michaels et al. 2001, Parker 2004). The talent may still be around, but no longer prepared to work in the large organisations that are seeking to employ it.

Paying large salary packages to attract CEOs who are extraordinarily sensitive pattern readers is one way in which organisations can strive to adapt earlier than their competition to a changing external environment. However, it is not the only way and as the world becomes more and more complex and diverse (in other words, as the patterns that matter involve more

elements than can be perceived by one person), it is unlikely to be the most effective way. A potentially more effective strategy will be to invite all employees and other stakeholders into novel conversations that will facilitate the identification of alternative possible patterns among the many signals they are picking up from the many different parts of the environment that they interact with in their day-to-day dealings in and around the organisation. In fact, innovative CEOs are already starting to redefine their role to give greater importance to the task of facilitating, listening to and acting on insights gained from these stakeholder conversations, perhaps as part of corporate social responsibility programs or "corporate citizenship" initiatives or reviews of "corporate governance".

This participative approach to scanning the environment, reading the signals and defining corporate strategy is consistent with the growing body of evidence that "distributed leadership" is more effective than hierarchical leadership in complex dynamic environments (Marion and Uhl-Bien 2002; Lakomski 2005). When the participation offered to stakeholders is genuine, and when a range of possible interpretations (or scenarios) are systematically developed and considered, then this participatory approach can also minimise the risks of interpreting weak signals about what is happening in the world in ways that suit a powerful leader's ego or political agenda (as witnessed in IBM's conclusion in the late 60s and 70s that the PC posed no threat to its centralised computing business model; and the more recent distortion of weak signals about the threat to world peace posed by Saddam Hussein and his "weapons of mass destruction" in Iraq). Corporate Boards should consider this point in developing more robust systems of corporate governance.

One obstacle that CEOs are likely to encounter in attempting to move in the direction of involving stakeholders in conversations about the environment and about possible future scenarios based on patterns among weak signals is the current pressure for rapid public accountability (i.e. dismissal) following "errors of judgement" or honest mistakes. Being prepared to act ahead of the crowd on possible emerging

Table 1: An Australian Example of a Possible Emerging Pattern of Weak Signals

- Ross Gittins article in Sydney Morning Herald on 24 August entitled “Money or a life, it was your choice” argues that economics ignores the impact of its policies on our family and community relationships and that we may be paying too high a social price for our economic affluence.
- ANZ and Commonwealth Banks have recently run advertising campaigns encouraging people to “retire early” or “give up your day job” and do something they really love.
- Downshifting, or living with less, is growing to the point where it has now encompassed 25% of the adult population in Australia and given rise to its own website: www.downshifting.net.au The most commonly cited reason for downshifting is to spend more time with one’s family.
- Psychological and stress related injuries now account for 7% of workers compensation claims processed by Comcare – but they account for 27% of the total payout for claims, averaging \$110,000 per claim. They are the fastest growing type of claim and were forecast to increase by 38% in the 2004-05 financial year.
- Generation X are characterised by putting their choice of lifestyle ahead of their choice of employer. They are much more likely than their parents to work for an organisation that allows them to live the lifestyle they value.
- A recent Gallup survey of 1500 Australian workers found 20% of workers are “actively disengaged” from their work and their employer costing the economy \$31.5 billion each year. A further 62 per cent of workers were “not engaged” or committed to their role and employer.
- Popular movies such as “The Corporation” and the more recent Naomi Klein movie “The Take” present a very bleak view of modern corporate life and suggest how the world of work may be about to change.
- The rate of growth in the number of self-employed people and of people working in small businesses employing fewer than 20 people has exceeded the rate of employment growth in large organisations in recent years. At June 2004, it was estimated that 67.5% of all small businesses in Australia were home based, compared to 58.3% in February 1997. These businesses were operated by 1,040,000 people, representing 62.6% of all small business operators.
- Since the dot.com crash and September 11, the Seattle based Getty Images organisation, that commissions more than 70,000 photographs and video images each year to sell to media companies and advertisers around the world, has noticed that “demand for images of fast lifestyles, Las Vegas-style razzamatazz and high tech has waned dramatically in favour of children, serenity and the supernatural”. Emotionally people are apparently “looking for a simpler time”.

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patterns of environmental signals will inevitably mean that leaders will occasionally get it wrong and will make investments in products, services or corporate capabilities that turn out not to be needed or profitable. This could be seen by uninformed stakeholders as evidence of poor management or poor corporate governance.

It will therefore be crucial for leaders to educate all stakeholders about the logic of any new approach to strategy making and decision making. Leaders will need to communicate to their Boards and to other stakeholders the longer term risk/reward implications of acting early on potential trends that could offer significant opportunities if it positions itself ahead of the crowd or significant costs if it waits for stronger evidence that a new pattern or paradigm is emerging around them. These actions will rarely need to be large, "bet the farm decisions" but typically can be rather small investments in new capability building or closer monitoring and increased data gathering of identified trends or emerging scenarios in order to be ready to move quickly when the outline of the future becomes clear enough to justify increased commitments to new ways of doing things.

If leaders involve stakeholders, as previously outlined, in ongoing conversations about the possible shape of the future and about the emerging patterns in the feedback they bring to the organisation then this educational task will be made easier.

Tools for reading and acting on weak signals

While there is not yet an accepted best practice approach to analysing new patterns that may be forming now on the edges of the social, technological, economic, environmental and political landscape and which will shape the world in which managers and their organisations will live over the next 5-10 years, a number of useful methodologies are available to managers who are keen to get to the future faster than their competitors – and I don't just mean the competitors that are on their strategic

radar today but rather the one's that may be getting ready to change the rules of the game in ways that have the potential to undermine the dominance of current market leaders.

The emerging profession of "futures studies" has developed an array of tools for capturing and analysing weak signals in order to develop a heightened capacity to envisage and plan for possible futures in which we may have to operate (Slaughter et al. 2005). These tools can be used to design and facilitate novel conversations about the potential futures that can be imagined on the basis of emerging patterns in the trends, events, performance feedback, tradeoffs and uncertainties that the organisation's stakeholder population is perceiving – however weak these perceived environmental inputs (or signals) may currently be when considered individually.

While the field of futures studies may itself still be a weak or even invisible signal for many managers, where futures methodologies have been used they have often achieved remarkable results. For example, one of the best known futures approaches involves engaging employees and other stakeholders in creating different views of the possible futures (scenarios) that may confront an organisation. This approach was instrumental in ending apartheid in South Africa by making people aware of the likely future consequences of current policies and actions and by creating more attractive visions of the future that could only be reached by changing course.

In my own consulting work, I have used the scenario methodology to identify opportunities for innovative products and services that are likely to be future market leaders in several sectors of the insurance industry in Australia (Saul 2002). By focussing attention on a future that is "way out there" (say, 10-20 years ahead in time) the process of developing scenarios liberates people to play with the possibilities inherent in the weak signals they may be tuning into about what may be emerging in their industry and in the social/political/environmental context in which it operates. By contrast, traditional planning approaches may not create a safe environment for managers and staff to raise and

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explore "crazy" ideas based on hunches (i.e. perceptions of weak signals) about possible futures that may require very different business models or leadership styles and skills from those on which today's success is based. It is the rare leader who is prepared to devote time and energy to exploring futures that require them to change the strategies that they are passionately committed to today.

Another futures approach - "causal layered analysis" - guides people in examining their views of the future on multiple levels and not just in terms of the language and data that is typically used to define and discuss the trends and issues shaping "the future" (Inayatullah 2004). For example, very different views of the future and of the strategies a nation might use to deal with terrorism will emerge from the typically American mindset that defines challenges in terms of "problems" that are for solving or as "wars" that are obviously for winning as opposed to the European and Asian mindset that more readily accepts that problems may be for living with and that sometimes the cost of attempting to win a war is higher than the price of engaging with conflicts in other ways - ways that may not have "winning" as an outcome (Bell 2005).

At a simpler, everyday level, search engines such as Google provide us with tools for analysing weak signals. For example, simply search on "future of X" where X is replaced by the name of your industry and you will be led to hundreds (perhaps thousands) of reports of technological innovations, new ideas, research statistics, novel competitor strategies and other signals as to the possible future shape of your industry. The patterns unfolding among these signals can then be analysed as part of a structured futures studies process.

By pushing us to look into the future through a variety of different lenses, futures studies techniques can help us to find novel ways of creating the economic, social and environmental outcomes that we seek - and also help us to avoid new investments in strategies and institutions that have passed their use-by date. Managers and leaders who seek to see further over the horizon than their competitors

will embrace this new science of weak signal management rather than sticking with strong signal decision making practices that no longer work in today's world where changes often happen faster than our capacity to research and analyse and debate them in ways that give them widely accepted status as "hard facts" or "best practice" or even "God's will".

At the heart of weak signal management is a diversity of stakeholders coming together in novel conversations about what may be possible if the future is not the way that current orthodoxy would have us believe. This approach would seem to fit rather well with Australia's national culture based on intolerance of established authority, tolerance of diversity and willingness to "have a go" and do things differently. Great leaders will extend the invitations for these conversations to happen and will use the new tools for guiding them in ways that maximise their chances of not only being productive in an economic sense but also of building cooperative and mutually respectful relationships among those who are involved. Indeed, having this kind of relationship among stakeholders is a great risk management strategy whatever the future may hold in store.

Looking to the Future

If the arguments presented above are accepted then skilful use of futures studies techniques such as weak signal analysis (or emerging issue analysis) and the capacity to build organisational capacity ahead of what can be justified by current "strong" data and traditional cost-benefit analysis are likely to be increasingly important leadership competencies as the twenty first century unfolds. This will require a shift away from "just in time" operational philosophies and short term financial metrics. It will require a leadership decision making logic that explicitly factors in the potential cost of being wrong about the assumptions on which we base our current decisions. It will require a decision making logic that defines as a "good" decision one that invests a modest amount today in order to prepare for a future scenario that is consistent with emerging patterns

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among (currently) weak signals – and where the costs of not doing so are expected to be so large as to threaten the viability or competitive position of the organisation. Conversely, the new decision making logic will define a failure of leadership any decision not to make these modest investments in future-proofing the organisation.

The new decision making logic described above may be attractive to a new kind of leader that will emerge in response to the complex, systemic challenges of the twenty first century. For example, Senge et al. (2005) have called for leaders to stop seeing the world, making decisions and taking action from the perspective of the parts of a problem or system or organisation – or even from the perspective of a whole system that is somehow abstracted from analysis of many parts. They call for a slowing down, a deepened reflection and imagination of the whole that "presences" itself, moment by moment, in each of the parts – a whole of which we are an inseparable part. The search for patterns or scenarios in the rich diversity of weak signals that surround leaders today (and the rest of us) may be one way of encouraging a letting go of our current perceptual lenses and an opening up to new ways of seeing. As Senge et al. (2005: 45) put it: "Until people can start to see their habitual ways of interpreting a situation, they can't really step into a new awareness". If we can shift to seeing from a holistic perspective then we may see the processes, of which we are part, that are creating our present reality and then be able to imagine new paths that lead to new futures.

Finally, recent analyses of the demographic profile of the post baby boomer generation of leaders that is about to take over the reins of power as baby boomers start to retire (or fail to adapt to environmental change) suggest that the next generation of leaders may be more receptive to governance systems that foster the kinds of participative conversations advocated above involving diverse stakeholders with diverse views of the emerging future (Macken 2005). Indeed, we may even get to the point where managing according to one, dominant set of assumptions about the future may be

seen as the hallmark of ineffective leadership.

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