

Chapter 2: Conventional responses

Introduction

Chapter two considers several aspects of the conventional business-as-usual *modus operandi*. These include widespread reality avoidance promoted by universal advertising, the over-valuing of technology *per se* and the way that many useful ‘signals’ about global change have either been misunderstood or set aside. Such practices arguably render humanity ever more vulnerable, so a brief look at a couple of major disasters is instructive. Overall what this chapter seeks to demonstrate is how various habits, values and priorities that are currently still accepted as normal impede progress toward a safer, saner world.

The writing on the wall

I’ve described the situation outlined in chapter one as *the* challenge to civilisation because it is global, systemic and irresolvable by any traditional means. It can be considered the ‘biggest wakeup call in history’ because it will take more than edicts, new laws and even new institutions to make the transition to a sustainable international order and new ways of life. While many place their faith in the potential of new technology, I will suggest below that there’s simply no prospect of resolving the situation by any technical fix whatsoever. There are no new planets waiting for humanity to colonise and no ways forward that do not involve a thorough re-thinking and re-visioning of our place on this world and the ways that different people, societies and cultures relate to each other. These, however, are far from simple tasks and so they will take time. But, as we’ll see when we come to issues such as global warming, that’s exactly what we don’t have. However we choose to proceed we’re now set on a path that leads through a period that will test humanity as never before. In the process, the most vulnerable areas will likely see dramatic decreases in human populations.¹

It’s not too presumptuous to suggest that, at some level, many people know this already. But because the implications are so profound, so challenging, we prefer to hope for the best and re-focus on the close-up and immediate aspects of our lives. This kind of withdrawal, however, by no means exhausts the available options. Over the centuries human beings have lived through numerous ‘downturns’, crises and periods of social breakdown. They’ve explored many responses to the prospect of human and civilisational decline and, in so doing, have acknowledged the brevity of life and the transience of the material world. Such existential responses have a long history that has been summarised by others and will not be repeated here.² Our subject is situated firmly within the distinctly modern (or post-modern) context wherein a great deal of confidence, cultural sophistication and capability is confronted by forces beyond our control. But that’s by no means the end of the story. A near-future context characterised by unthinkable adversity and which renders many human responses problematic, also brings into play new psychodynamic and cultural forces that, as we’ll see in Part Two, creates new, hitherto unexplored,

options for humankind. This means that, while the immediate outlook may often appear forbidding, there is indeed light at the end of this particular tunnel. It is as well to remember this as we proceed.

We need to understand these emergent forces and acknowledge the terrain from which they spring because within them lie many solutions in embryo form. Thus far, however, mainstream responses to the emerging global crisis have overlooked these interior realities and remain largely tokenistic and administrative. Various governments have undertaken *some* actions to respond to initiatives like the Brundtland Commission's call for 'sustainable development', reports from the International Panel on Climate Change (IPCC) and the Stern and Garnaut Reports on global warming.³ Regulations have been developed that purport to 'protect the environment' and to pursue sustainability. The fact is, however, that most of these efforts are convenient fictions adopted largely to pacify public opinion. This can be stated with confidence since by almost every possible global indicator, *few of the measures thus far adopted anywhere in the world have dented the upward curve of economic growth or modified its many associated impacts*. Such mainstream responses as have been attempted have barely started to consider how human impacts can be successfully scaled down and societies accommodated within the wider natural world.⁴ The latter has been progressively mined for short-term gain and most people in most places have bought into this temporary largesse because it improves their conditions of life in the here and now. This makes some sense in the poorest developing nations. Yet what stands out within the technically advanced nations is that the process has not been driven by any defensible notion of human or social needs. More significant than these are the abstracted goals of trans-national corporations for which expansion, growth, profit, return on investment and the like take priority over any concern for human beings, societies or the Earth itself.⁵

There have obviously been some successful interventions to accompany what might be called a rising tide of social concern for the poor and for the declining health of planet Earth. Various social innovations have proved useful. For example, the use of 'micro credit' by the Grameen Bank (to which we'll make further reference below) and other such cooperatives has placed new power in the hands of women in some poor countries. On the health front multi-national drug companies have been induced to provide certain drugs to the poor at reduced prices. There has been some progress in environmental and wildlife protection in specific areas. Certain high-profile species have also been saved from immediate extinction by voluntary work and philanthropic money. Dedicated action by concerned minorities have 'saved' certain areas from the ravages of development. An international agreement was even achieved to phase out CFCs in order to 'save' the ozone layer so it could continue to protect the Earth from harmful solar radiation. Sadly, however, later research showed that the cure also had a downside.⁶ Whaling is increasingly unpopular and may one day cease, Japanese intransigence notwithstanding. A close friend of mine has spent his entire professional life bringing a rare ocean going petrel back from extinction to a few dozen pairs. I do not want to undervalue such efforts for they are surely valuable and among the most ethically sound and most worthwhile options available to us. Yet, at the same time, we should not pretend that these scattered social innovations and efforts at restorative action have made a great deal of difference at

the global level. The multi-faceted process of global decline and deterioration is still the dominant trend and is not amenable to piecemeal approaches.

We need to acknowledge that the ‘writing on the wall’ about the nature, extent and urgency of the global predicament has been visible for some time. There’s no shortage of what foresight practitioners call ‘signals’ in the global environment that indicate serious declines across the board. Over the last century or two the warnings available to humanity have increased in number, intensity and significance. One or two such signals mean very little. But when they line up and show continuity over time they indicate that significant trends are underway that we ignore at our peril. The most critical of these constitute warnings that, if they’d been responded to in intelligent and timely ways, could have prevented the slide into chaos that now confronts humankind. It’s obvious that we have to get much better at detecting these signals, interpreting them correctly and using them to inform our subsequent actions. To that end this chapter reviews some common assumptions and practices that result in signals either being ignored or misunderstood, thus inhibiting effective responses. Some illustrative examples from the USA and Australia are also provided that have parallels nearly everywhere. Readers may wish to compile their own lists from their own country or region.

Business as usual, reality avoidance and universal advertising

Taken as a shared understanding ‘business as usual’ springs from the innate human tendency to prefer the known and to avoid the less well known. The former certainly saves energy and makes sense up to a point. But when it becomes frozen in place and not adjudicated by some higher function or purpose, it leads to rigidity and a failure to adapt. That’s arguably what’s happening today on a vast scale as all the many and varied human populations of the world are beginning to face upheavals of which few have any direct knowledge. An inherent human conservatism suggests that we all want to continue with things as they are and in order to achieve this we’ll sometimes actively tune out the signals that are informing us of very real dangers ahead. If, at a personal level, smokers can ignore the contradictions in their habit when their own wellbeing is at stake, how much easier is it to ignore the apparently more distant and abstract threats facing the world? Thus, the larger contradiction emerges. Just as smokers seem to require a serious health crisis to wake up to their self-destructive habits, so it appears that societies need to experience major disruptions before they’ll contemplate the necessary structural changes. I refer to this as the ‘dialectic of foresight and experience.’”

Business-as-usual appears attractive because it means that the systems, procedures and understandings that permeate the social landscape do not need to be materially changed. The efforts required to make such changes can be avoided—at least for a while. As has long been known, however, this means that when changes become unavoidable they are made with greater effort and often far greater cost. There is one fact, however, that is often overlooked by intending social innovators. There are ‘opportunity costs’ (i.e. the present cost of taking action for some future effect or purpose) and therefore society necessarily resists attempted innovations up to a point. The latter only become legitimated, and taken into common practice, when they’ve passed certain tests. And society must protect itself—or try to—from the effects of

ill-considered innovations. Understanding this is not an argument for social *rigor mortis* but, rather, an argument for intending innovators to recognise the social processes that necessarily come into operation when attempts are made to articulate and implement them. So, to summarise, a business-as-usual outlook and *modus operandi* makes sense when background conditions are steady and society is not under threat. That, indeed, forms part of the underpinning of most traditional societies. But when, as now, those conditions are compromised and society is indeed under systemic and unavoidable duress, such an outlook raises the stakes and becomes increasingly dangerous.

Reality avoidance involves being caught up in situations where one prefers to navigate, make decisions, according to prevailing illusions, rather than seeking out quality knowledge about what's 'really going on.' As a concept and practice it is, by definition, self-defeating and some of the personal costs deserve much closer attention. Here, however, I want to touch on some of the ways that this near universal practice is driven by powerful social formations, namely advertising, marketing and merchandising. These are in turn driven by the built-in requirement of the capitalist system to expand without limit. When people have enough they must be persuaded to want more. That's why we're daily subject to a remarkable and nearly universal assault from a great variety of commercial messages that may endanger health and certainly misdirect entire populations. This has been understood for at least half a century but what is striking is that nothing has really moderated this noxious flood.⁸ In fact it has become progressively worse and so familiar that one must in some sense 'stand back' from the torrent and look upon it with fresh eyes. To do so is to become aware that one cannot, drive, walk down the road, open a paper, watch TV, see a film, read a magazine, stand at a bus shelter, open a mailbox or enter a shop without a welter of ads bearing down, each vying for attention. These occasions are uncountable. Over a lifetime they constitute an unprecedented assault that cannot but have pervasive conscious and subconscious effects. To see this happening is to realise how strange and perverse it is. Yet few spare it a thought, let alone consider the implications. But there are many. It is an abusive system that denies our shared humanity, replicates damaging stereotypes and induces widespread passivity.

Under this constant assault urban dwellers have learned the value of becoming desensitised. They've instinctively found ways to shield themselves from the gigantic billboards and electronic displays that dominate skylines and streetscapes. Times Square in New York, Las Vegas, Nevada, and parts of Tokyo, Japan, may be the most egregious examples. But the syndrome they represent is omnipresent and differs only in scale, not in the dehumanised purposes behind it. Cities all over the world provide plentiful evidence of having been effectively hijacked by commercial interests. The ideology, values and worldviews that motivate the latter are seldom clearly expressed but they include a fundamental lack of respect for, understanding of, people and their world, their real characteristics, needs and limitations. To be so constantly 'advertised at' is to be assaulted by an uncompromising 'push' model of communication when in fact we have the all the means necessary to replace it with vastly more considerate, egalitarian and, dare I say it, more efficient 'pull' methods. Currently it still remains possible to see people mainly as consumers whose only available role is to succumb to 'retail therapy.' In that process, and over time, it is unsurprising that whole

populations lose touch with what might be called their ‘real needs’ and become entranced with culturally-derived phantom needs and endless manufactured ‘wants.’ By now it is beyond doubt that material affluence is counter productive in two significant ways. First, research shows conclusively that it does not make people happy.⁹ Second, the Earth’s natural systems are being progressively degraded as a result of ever-increasing human demands.

Language itself is debased by mass marketing. For example, the term ‘free to air’ is widely used. But a moment’s reflection shows that the term is misleading since nothing is free. The costs of commercial channels are paid, and paid in full, by everyone who purchases a product that is advertised. Pay TV cable channels then double dip by also running advertising and collecting revenues on top of the subscription fee, proving yet again that commercial greed has no limit. The system of accounting underlying commercial TV may, from one point of view, be seen as a success. Yet fundamentally it’s a device that exists for one main reason—to deceive the public. Its purpose is mercantile expansion, its *modus operandi* is wholesale deceit coupled with a fatal misreading of, or disregard for, the human and ecological context.

Advertising in the ways that became ‘normal’ during the now-completed period of rapid economic growth has clearly become dysfunctional. It retards social development, misdirects people, wastes resources wholesale and is one of the main reasons that cultures that assumed growth would continue forever are having such difficulties in contemplating a different outlook. The latter depicts a world in deep and genuine crisis—not merely political and economic, but also a now-unavoidable systemic one. It’s a world that has to confront limits and consequences on a scale seldom experienced in human history. It’s a time that calls for clarity, restraint, cooperation and intelligent action. All of which advertising betrays and destroys.

A related issue is the need to ensure that the emerging electronic technologies of our time are not themselves appropriated in pursuit of corporate greed. We can be quite certain that the erstwhile ‘captains of industry’—and their media-savvy associates—already have their eyes firmly on our personal, private and virtual spaces with the aim of infiltrating them at the earliest chance. Confirmation of this can be found by glancing at any broadcast sports game or website featuring the kind of ads that dance and leap all over the place, that shimmer, beckon and seduce in order to grab the eye. Such examples provide direct windows into a compromised nightmare future in which visual acuity that was developed and honed over millennia is bent to abstract and inhuman ends.

There are, however, various ways out of this mess once we see that full-on commercial advertising is a vast process of misdirection and misallocation of resources. It can be brought to a halt, its skills and personnel re-directed to other ends. To achieve this we’ll need to look deeper into ourselves and into our society to build the capacity at a values level and to moderate the choices we make (issues we’ll return to below). A well-intentioned stab in that direction was taken in 2008 by the Australian ABC in a comedy-based show called *The Gruen Transfer*. In some ways this was a breath of fresh air in that it brought to the small screen some of the strategies that are used to sell, sell, sell. But the show was based on entertainment values rather than on any sense that the underlying issues were actually dangerous. Its encounter

with the advertising world was based on having fun and perhaps mocking its myth of invincibility. So far, so good. But this can only be a small symbolic foray into a much deeper well of dysfunction and eventual despair. It won't change anything. So, short of a global breakdown, what will?

Apart from the literature and research that informs this book one obvious place to look for insight and inspiration is the Internet, with its profusion of 'netizens,' subcultures, radicals, blogs and so on that together provides a vast resource available to nearly anyone. Less well recognised, perhaps, is street art. It's not foolproof and not all street art is useful or good. But it's mainly produced by younger and freer thinking people and predominantly viewed by them as well. Over time it can reach a surprisingly wide audience. Some of the better pieces have an extended 'virtual life' in books or on websites (before they are removed by council employees). So a careful look around most cities reveals various unfiltered, non-approved responses to the prevailing corporate ideology in the form of pointed, often acerbic, witty and subversive art. Also relevant here are the 'culture jammers' who take on big business and often employ the latter's own strategies and sites—such as large billboards—to poke fun, undermine and critique their values and assumptions. Then in 2009 culture jamming came of age in the form of a cooperatively funded and produced film called *The Age of Stupid* to which I'll refer again in the conclusion.¹⁰

While it's too early to know how successful such initiatives will prove to be it is clear that there's considerable mileage in intelligent symbolic guerrilla tactics of this kind, especially when core values are clearly articulated and when they're picked up and multiplied by the mass media. Eventually the collective impact of these and related strategies may do more to contribute to a 'sea change' in general awareness than any other approach.

Technology as 'the answer'

Another conventional assumption is the tendency to place undue weight on the power and potential of new technology to solve problems. This is sometimes coupled with the expectation that they'll help usher in a new era of peace and prosperity. It has been a feature of American futures work as well for as long as I can remember. The stereotypical concerns of many mainstream US Futurists centre upon such topics as space exploration, genetic manipulation, the Internet and 'the future of the automobile.'¹¹ Clearly these are not trivial matters. Yet in each case technology is seen as an autonomous force with unlimited power and influence. The view that technologies are *social products* that emerge from social and human contexts gets little attention. The fact that they do not stand on their own, but are the product of a wide range of visible and invisible factors and forces, is overlooked. In fact the reverse is true—any assessment of their role needs to be situated within the wider context that includes the relevant human and cultural factors.¹²

William Halal is an emeritus Professor at George Washington University and a long-standing proponent of the power of technological innovation. He's the author of many books including one on *Technology's Promise*.¹³ He leads a team that employs a network of some 100 'experts' around the world to forecast technological breakthroughs. He writes of the 'relentless power of technology' and approvingly quotes Andy Grove, Chairman of Intel, that 'technology always wins.'¹⁴ He makes a

case for the emergence of a range of ‘green technologies’ and essentially argues that a range of technical innovations will, over time, resolve the global ‘crisis of maturity’ that we’re currently experiencing. At the same time he expects global GDP to double by 2020—as if that could take place without exacerbating the impacts that currently threaten the world system.

While one can certainly acknowledge the dynamism of this sort of innovation the perspective is a dangerous one as it ignores some of the most significant aspects of the global picture. For example, it pays little heed to the ambiguity of advanced technology and the fact that emerging powers can be used for good or ill. As we’ll see below this is clearly demonstrated by the many ways that organised crime is using the Internet for a range of illicit purposes from direct hacking to identity theft to an astonishing range of highly profitable scams. Again, it fails to see that, as a social product, technology is ever and always permeated with particular *values* that are expressive of specific *social interests*. It misses the related fact that technologies take on what might be called the ‘shape,’ ‘style’ and preoccupations of particular groups within the societies where they are constructed and used. Questions of alternative values, worldviews and purposes are eclipsed in a blaze of positive expectation. If it is true that ‘technology always wins’ then who or what, we should ask, are the losers?

Two recent technical innovations are indicative of ‘things to come.’ The first emerged in a report that police in North Carolina were intending to set up surveillance cameras to record each and every passing car. This information would be checked against an FBI database that would then draw attention to any ‘suspicious’ matches. The system was apparently designed to track the movement of criminals, suspicious and missing persons as well as to ‘analyse patterns of movement or personal associations.’ Yet a closer look at the database by Civil Liberties groups found that peace activists had also been included. They immediately called for controls to be in place to make sure the system would not retain data on the movements of ordinary citizens. A spokesperson was quoted as saying that ‘It’s not a legitimate use of this technology to be storing information on innocent citizens on the off chance that someday law enforcement might want to track this person down for some reason.’¹⁵

An even more startling innovation is the development of dewdrop-sized ‘motes’ that are intended to serve as ‘invisible security guards.’ Long foreshadowed in science fiction this technology promises to:

foil even the most determined intruder. Scattered outdoors on rocks, fence posts and doorways, or indoors on the floor of a bank, the dewdrops are a completely new and cost-effective system for safeguarding and securing wide swathes of property ...

Dozens, hundreds and even thousands of these Smart Dew sensors—each equipped with a controller and RF transmitter/receiver—can also be wirelessly networked to detect the difference between man, animal, car and truck. ...

(Furthermore) each individual ‘dew droplet’ can detect an intrusion within a parameter of 50 meters (about 165 feet). And at a cost of 25 cents per droplet, ... Smart Dew is a covert monitoring system. Because the sensors in the Smart Dew wireless network are so small, you would need bionic vision to notice them. There would be so

many tiny droplets over the monitored area that it would be impossible to find each and every one.¹⁶

This technology is a big step beyond conventional alarm systems not only due to its miniscule size but also because each droplet can be programmed to monitor different phenomena including ‘sounds, magnetic fields, temperature changes, carbon monoxide emissions, vibrations or light.’ Each droplet is connected to a ‘base station’ like that used for cordless phones which collects and analyses the data. It is said to be a safe, low-power and cost effective solution.

One issue being overlooked here is the way that advanced technologies increasingly seem to fall beneath human perceptual thresholds. If you cannot see something you cannot deal with it and you become subject to the inherent power that it contains. Such power becomes transferred to those who own or manage the technology. Once installed and operating human agency is undermined in ways that are covert and non-negotiable. Overall, a sophisticated technological ‘net’ is being constructed that, for as long as it lasts, will permeate and surround human life and the wider ecological sphere on which it depends. Yet, as we’ve seen above, such developments are not a result of human need or desire. They’re the result of the inherent dynamism of technical development coupled with a culture that denies limits and little or no appreciation of the interior domains of existence.

Technical fixes have become common in many environments. Basically they obscure or defer problems for a short while, but they do not solve underlying issues. They’re mentioned in the *Limits to Growth* study (discussed below) as being one of three main choices available when a system is in difficulty. (The other two were to ‘delay, deny or confuse the signals’ or to ‘intervene and change the structure of the system.’) These are attractive to a society that already has a preference for technical ‘solutions’ that do not greatly disturb the *status quo* and fit within existing worldviews. Some technical fixes are relatively benign—such as speed bumps on side roads or stomach stapling for the overweight. Yet, as noted, in most cases an underlying problem or condition is not being solved. Rather, the effects are temporarily diminished and, as a result, the problem becomes easier to live with for while. Currently there’s one technical fix that’s being invoked as a way of resolving energy needs during a time when oil supplies cannot be guaranteed and global warming becomes undeniable. I’m of course referring to nuclear power.

I’m not going to review the *technical* arguments for and against nuclear power as there are plenty of excellent sources that the interested reader can consult.¹⁷ Instead I want to pose the question at a much more basic level: would you give a group of teenagers a box of hand grenades to play with? If the answer is ‘yes’ I’d be surprised because, put that way, the issue is stark and I find it hard to believe anyone would take such a view. I’d imagine that most people’s common sense would lead fairly directly to ‘no.’ The reason is not hard to understand. Clearly, it would not be a safe or sensible thing to do. It wouldn’t be long before someone would get injured or killed. You just don’t provide those kinds of ‘toys’ to youngsters. You can see where this is going... For any form of nuclear power to be deemed ‘safe’ requires that its promoters prove beyond all doubt that the risks are negligible over very long periods of time and under any conceivable circumstances. Yet, even in the few decades since its emergence, that is not our historical experience.

Many years ago on a trip to London my parents took me to an exhibition called *Atoms for Peace*. It'd have been no later than the late 1950s or early 1960s and I distinctly remember my mother being polled for her responses. I also recall the promise at that time that nuclear technology would mean that electricity would be 'too cheap to meter.' Of course the attraction of the belief that, after the expenditure of huge sums of money on R & D, nuclear technology might be turned to peaceful purposes is entirely understandable. But in the decades since two things became clear. First, the military and possible civil uses of nuclear power are indissolubly entwined. Second, that the costs of both uses are fundamentally incalculable and will never be resolved. There are human costs, environmental costs and social costs that make this the technical fix *par excellence*. One of my own friends died much too young of leukaemia, having worked as a photographer for the UK nuclear industry. He was one of many. The environmental costs of Chernobyl and other such accidents will never be fully known.¹⁸ Equally, the growth of what can only be called 'totalitarian sectors' in all societies with nuclear facilities should be sufficient to give us pause. It is not necessary to evoke the added hazard of terrorism to see that this is an unwise path to pursue.

Clearly the French, for example, are proud of their advanced reactors and protective of their ability to provide electricity from non-fossil fuel sources. Having ploughed such vast investments into these expensive facilities, they want to make the most effective use of them. But this is all very short-term and, indeed, temporary. What has been almost universally overlooked is that humanity remains an 'adolescent' species; one that—as we'll see much more clearly in Part Two—is only part way through a long and uncertain process of development and integration; one that is still a long way short of full maturity. Nor is there clear evidence that it has mastered its darker and more destructive impulses (see below). Therefore, while we may have the ability, I cannot see that one species among so many has the right, to pursue a technology that further reinforces the technocratic aspects of Western culture and, moreover, can never be deemed 'safe.' The fact that nuclear weapons and nuclear power plants have been designed, created and commissioned *at all* provides clear evidence of the power of technocratic consciousness that has compromised our world and helped to bring our species to the edge of disaster.

A wiser species would understand the primary role of cultures, worldviews, values and, at base, consciousness itself. It would have no difficulty in understanding that some of these technical developments represent paths that should never have been taken.¹⁹ Yet in a conventional view we prefer to gaze admiringly at the wonders of modern technology and to accept a widespread category error—namely to think that we are more advanced than we are and that basically we remain 'in control.' Sadly this is untrue as American historian and philosopher Ronald Niebuhr recognised some years ago.²⁰

Missed and misused signals

The twentieth century provided humanity with a wide range of relevant signals about the 'state of the world' but these not only were not welcomed, many were deliberately undermined or ignored. Some examples from the USA include:

- The publication in 1956 of Hubbart's Peak—a graph that accurately predicted that the peak of US oil production within mainland America would occur by 1971. Taken seriously this would have alerted government, industry and business that there would be strict limits to the growth phase that cheap petrol made possible.²¹
- Rachael Carson's 1962 book *Silent Spring*, that described the impact of pesticides on many of the nation's birds. Carson, however, was pilloried by the chemical industry that portrayed her as a 'rogue element' and, in so doing, overlooked the universal interests she was attempting to defend.²²
- Paul Erlich's book *The Population Bomb* overstated the *immediate* dangers of population growth but correctly drew attention to its long term dysfunctional aspects. In later years it became a kind of negative '*cause celebre*' because the worst predictions did not eventuate. But the critics had themselves largely failed to think through the underlying issues.²³
- Frank Herbert's anthology produced for Earth Day in 1970 and provocatively entitled *New World or No World*. Parts of it were transcribed from broadcasts at the time and, overall, it captured the sense that fundamental changes were needed in the US and, by extension, other developed nations.²⁴
- Speeches by US President Jimmy Carter in 1977 and 1979 warning of the clear dangers ahead. Gus Speth's experience as Jimmy Carter's principal environment advisor was indicative of the obstacles to be faced. In a 2008 interview he noted that 'we pushed the global warming issue hard, starting in 1979' but failed to get it on the agenda. Looking back, his conclusion was that 'we were trying to do environmental policy and activism within a system that was simply too powerful.'²⁵
- James Hansen, a well-known environmental scientist, made many attempts to get global warming on the US agenda, beginning with an address to Congress in 1988, but was sidelined right up to the end of the Bush administration.²⁶
- The latter not only refused to sign the fledgling Kyoto protocol on controlling CO₂ emissions but actively attempted to undermine it. Bush was noted for asserting that 'the American way of life is non-negotiable.'

A similar syndrome of sustained denial and the misreading or premature dismissal of such signals can also be found in many other places. Here are some from Australia:

- Former Prime Minister Keating's summary dismissal of the sustainable development (ESD) process in 1992/3. A number of ESD forums were held in various parts of the country and related reports and other publications were issued. According to Birch, the reports were circulated to no less than 'thirty-six interdepartmental committees' (p 39) before they were abandoned.²⁷
- Charles Birch's book *Confronting the Future* was first published in 1976 and canvassed a wide variety of issues facing Australia and the world, but was then ignored by the mainstream; the book was inspired by the 1972 *Limits to Growth* and its Preface was written by Aurelio Peccei. Its basic proposition was that fundamental changes were needed in Western culture. It took stock of the key issues and concerns facing Australia and recommended policies and strategies to

deal with them. The latter diverged radically from what was considered to be ‘politically acceptable’ at the time and thus were deemed to be either too hard or unworkable.²⁸

- The *Australian Commission for the Future* (1984-1998) was initiated by then Science Minister, Barry Jones, to help Australians become better informed about technology choices and future directions. Under four directors it attempted to come to grips with these and a range of other long-term issues. It was considered either misdirected or a failure by many. In fact it yielded useful lessons that can be (and have been) used to inform more advanced foresight work. It was abolished in 1998 after a final effort by Senator John Button to make it viable;²⁹
- Clive Hamilton’s work, summarised in his book, *Scorcher*, provides chapter and verse on how the Howard Government followed Bush’s lead and also worked to sabotage Kyoto;³⁰
- *Australia 2020: Foresight for Our Future* by Matthew James of the Parliamentary Library, Canberra, is an example of a proposal originating from within the government infrastructure that drew on Australian and overseas sources to argue for the usefulness of long-term views. Like other such initiatives it contradicted the prevailing market-oriented outlook, was ignored, shelved and forgotten.
- *The Canberra Futures Forum* was set up to facilitate informal dialogue between middle-level government employees and held regular meetings for several years. It was later closed by Ministerial edict for reasons unknown.
- *The Australian Foresight Institute* was initiated at the behest of the then Vice Chancellor of Swinburne University in 1999. A Masters of Science in Strategic Foresight was offered from 2001. The notion of adding foresight to strategy was and is a productive one. The course attracted a range of ‘mid-career professionals’ who soon formed their own identity and alumni group. The AFI per se was abolished in 2005 upon the appointment of a new Vice Chancellor as part of a university re-structure. The AFI was downgraded into a program within a Faculty of Business and Enterprise.

There are numerous other examples and sources of insight that have examined the pathologies of the modern age and made many helpful suggestions for resolving them. Figure 2.1 lists a number of works that have appeared over the last sixty years. They include Lewis Mumford’s 1971 book *The Pentagon of Power*, which explored the ‘myth of the machine’ and its many drawbacks. Roberto Vacca’s 1974 book *The Coming Dark Age*, probed some of the systemic long-term weaknesses of complex societies. The *Limits to Growth* study first published in 1972 is addressed below.³¹ Moreover two parallel series of books have been published for a couple of decades now: the *State of the World* and *Vital Signs*.³²

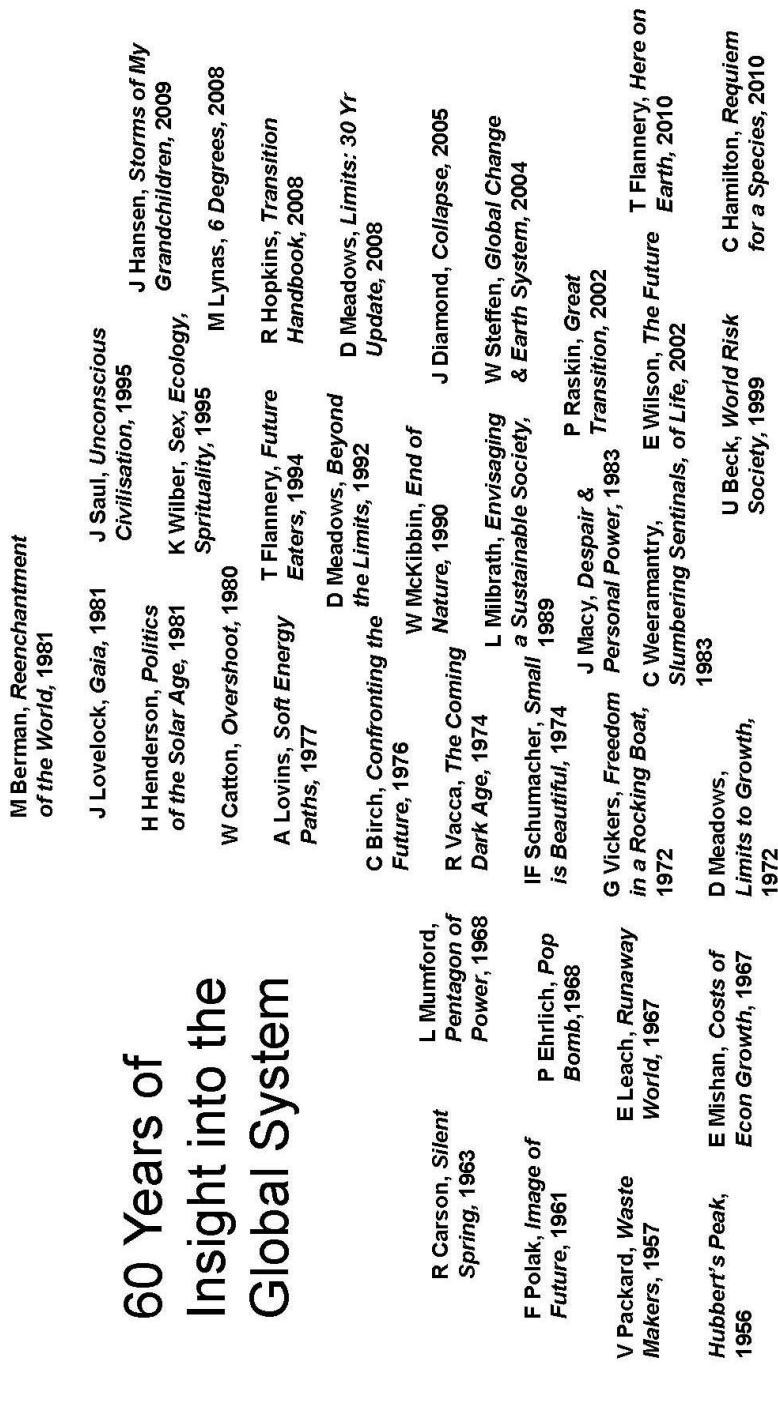


Figure 2.1 Sixty years of insight into the global system

While both have achieved a wide international readership they still do not penetrate to the higher levels of policy and practice. Thus far, this is the fate of such works. Nor should we forget William Catton's 1980 prescient work *Overshoot*.³³ On the whole, the wider literature of warning has at best only had patchy influence and, as a result there's little evidence that the right lessons have been learned.

The fundamental problem is this. Initiatives designed to take the long view and deal with major social and civilisational problems have gone up against a powerful here-and-now culture that wants no part of them and, indeed, actively undermines them at every possible turn. It is a corporatist culture. A culture that erects material growth and subjugation of the natural world as its goal, market-oriented economics as its means and many of the achievements of modernity—both material and otherwise—as its tools. It's a culture that wears a veneer of civility, presents a front massaged by sophisticated PR, sports high-rise modern architecture and neo-classical frontages, but remains one based on age-old impulses of greed, venality and power.³⁴

In this context progressive innovations may not attract outright hostility, which is rare. Rather, they tend to run out of steam, fail to attract sufficient resources or support, or are abandoned at critical stages in their development or implementation. One case that I was involved with personally, a new school subject called *Futures—Personal, Social, Global* which was unanimously approved by the relevant curriculum committee, failed because those responsible in the Education Department 'dropped the ball' during an organisational restructure. There was no direct or obvious connection here at all between the department and the corporate world. Yet the mentality of the latter was clearly alive and well. The pilot project was simply abandoned despite promising evaluations from the trial schools. None of those responsible were ever asked to explain why considerable sums of public money—not to mention the expenditure of a great deal of human effort—was set aside and wasted and countless students deprived of the opportunities the program would have offered them.³⁵

Disasters and warnings

The fact that a disastrous event lies 'somewhere in the future' evokes a response known as 'future discounting.' It refers to the fact that 'a dollar today is worth more than a dollar tomorrow' and that, as a result, the value of money (time, effort, etc.) is perceived to decline the further away it or they appear to be from the present. The fact is that to act now in anticipation of a future threat means that some part of today's agenda might not be funded or fulfilled. A combination of future discounting and opportunity costs are usually evoked when some measure or other is proposed to deal with a future contingency. Within mainstream government and business environments procedures have been developed to assess the 'cost/benefit ratio' of proposed future actions. The ROI (return on investment) helps to decide if an investment will be made or not. But within the public realm such assessments are rendered more difficult due to the diffuseness of possible threats, the lack of appropriate infrastructure and the 'here and now' focus of everyday life within a taken-for-granted worldview.

Occasionally, however, events occur that demonstrate the usefulness of investing in avoiding or minimising future threats. Traditional sayings such as 'forewarned is

forearmed' and 'a stitch in time saves nine' bear witness to the usefulness of protective anticipation. Whenever a disaster occurs which causes widespread damage to property and horrific loss of life, attention returns to the dialectic of foresight and experience. This is a step beyond seeing natural disasters as inevitable and to be suffered stoically and repeatedly. But current provisions do not, by any conceivable stretch of the imagination, prepare us for what is surely coming our way in the near term future. A couple of examples are useful here.

On December 26, 2004, an undersea earthquake off of Sumatra in the Indian Ocean set off a tsunami that killed over 220,000 people in coastal areas across the region. The tremor was picked up almost instantly at seismic listening stations in far away mainland America and Hawaii. Those closest to the epicentre would have had scant minutes to respond. Those in the Andaman and Nicobar Islands may have had a quarter of an hour, and those over the ocean in Sri Lanka nearly two hours. Yet some 29,000 people died in Sri Lanka for lack of a warning. In the aftermath of the event the Indonesian government decided to take action and before the year was out a German research vessel had placed the first of 15 earthquake sensors on the seabed some thousand kilometres from the shore. A news headline read 'Forewarned is forearmed: Jakarta opts for early warning tsunami sensors.'³⁶ In this instance the almost incalculable costs in lives, property, farmland, lost production and suffering overturned the usual reluctance to take appropriate and effective measures to reduce the impacts of any such future events. This is one way that human beings respond to immediate and dramatic disaster.

Another example is the Sichuan Province, China earthquake in 2006 that killed some 69,000 people. Particularly tragic was the loss of thousands of children and young people whose schools collapsed due to shoddy construction and local corruption. It was subsequently reported in the Western press that the government had earlier suppressed what turned out to be very accurate warnings from their own scientists about the likelihood of just such an event. One article reported that 'China ignored warnings from five leading seismologists that a strong earthquake would strike the mountainous province of Sichuan, including one forecast that almost exactly predicted the date.'³⁷

Clear evidence was uncovered of government attempts to suppress evidence relating to earlier warnings. But none of the seismologists involved could be traced. The issue here is not simply that forecasts were dismissed, which is scandalous enough, but rather that after the event, instead of acknowledging the oversight and correcting the process that enabled it, the Chinese government chose to close ranks, protect itself and, in so doing, avoided learning from the tragedy. As a result lives will continue to be lost because the government failed to reform its decision making procedures and also because seismologists now know, if they did not know before, that their knowledge and expertise will be continue to be undervalued and set aside. The fact that some had to go into hiding, had retired and were 'uncontactable' attests to the personal costs of those who attempt to stand up to heavy-handed and intransigent governments.

What these two cases demonstrate is not good news for the human species. If, as in the Indonesian tsunami, the establishment of early warning systems first requires such a full-on and devastating social experience, then it follows that such experiences

cannot readily be avoided when they involve phenomena that may not have occurred before or whose initial manifestations do not create sufficient suffering and devastation. In other words, in this rationale, we have to experience catastrophe in order to assemble the social capacity to respond. This bodes ill for our collective ability to protect the Earth's life support systems. The implicit view is something like 'if there are no obvious problems right now, the situation is not that urgent.'

In cases like the second the prognosis is worse. Even if there is a dramatic event, with high and tangible costs, there's no guarantee that the 'correct' lessons will be learned and the 'right' measures put in place. The meltdown of the nuclear reactor at Chernobyl did not lead to the winding down and eventual abandonment of that technology. Rather, it led to industrial and technical fixes that, even now, allow authorities all over the world to conclude that nuclear reactors are 'safe.'

In the cases outlined here, and many others that could be cited, it becomes clear that human social systems are 'out of sync' with the wider world in which they are located. Thinking and social progress lags behind. Values, priorities, worldviews and so on often seem to reflect a safer and more settled world. But that's not what we have. Moreover, many social innovations that are seen by their promoters as proud achievements actually point us in exactly the 'wrong' direction. Instead of working toward a stewardship ethic and planet wide restoration they promulgate what is by now a redundant and highly dangerous view—that of a cornucopian world abundant in resources for human consumption and under no real threat at all.

Conventional, business-as-usual thinking is dangerous and myopic. Technology is not 'the answer'—though it may be part of it in the right circumstances. Missed signals lead to missed opportunities and a steady increase in the eventual costs. So a fundamental question arises—how credible is it to suggest that the current trajectory of development will overshoot global limits and collapse? We turn to this question in the following chapter.

¹ Dyer, 2008. Also see web site at: <http://dieoff.org/>

² Atkisson's *Believing Cassandra* (1999), is a popular and readable account of the global problematique and some ways of beginning to move beyond it. The first six chapters on 'Cassandra's dilemma' are perhaps of greater interest than the last four on reinventing the world. Atkisson is an avowed optimist so his easy-going style may appeal to those who've had enough of more 'downbeat' approaches.

³ Stern, 2006.

⁴ Presently in Australia, for example, recent reports have suggested that the populations of major cities will, in some cases, double within in few decades and the population of the country rise to over 30 million. See the Australian Government's third 'intergenerational' report, *Australia to 2050*, 2010.

⁵ Korten, 2001.

⁶ It turns out, however, that this 'success story' has a subsequent downside. It has recently emerged that the replacement for CFCs is itself a serious greenhouse gas with impacts far exceeding those of CO₂. See Fahrenthold, 2009.

⁷ See Slaughter, 1995.

⁸ See Packard, 1957.

⁹ Eckersley, 1998. Also Hamilton & Denniss, 2005.

-
- ¹⁰ Armstrong, 2009.
- ¹¹ See Slaughter, 2008, pp. 4-27.
- ¹² See Ramos, 2003.
- ¹³ Halal, 2008.
- ¹⁴ Halal, 2009.
- ¹⁵ Zetter, 2009.
- ¹⁶ *Science Daily*, Dewdrop-sized Motes Serve as Invisible Security Guards, 27th March, 2009. Retrieved, 1st May, 2009, from: <http://www.sciencedaily.com/releases/2009/03/090326120839.htm>
- ¹⁷ One of the best sources is Lowe, 2007.
- ¹⁸ This spewed nuclear materials over large areas of Europe and contaminated the local area, prompting a complete evacuation. The claim that later reactors are 'safe' is not supported by the facts. Setting aside arguments about proliferation and storage, there's no evidence anywhere to suggest that such a powerful and potentially destructive technology can be considered 'safe' in a world of fallible institutions and equally fallible operators, to say nothing of 'terrorists' for whom they, and their products, are of huge interest for destructive purposes.
- ¹⁹ Le Guin's *Always Coming Home* (1985), explores this theme in considerable depth.
- ²⁰ Bacevich quotes American historian Ronald Niebuhr as saying that 'the whole drama of history is enacted in a frame of meaning too large for human comprehension or management.' Bacevich, 2008, p. 122. Also see Niebuhr, 1952, 1985.
- ²¹ See Leggett, 2006a, pp. 52-55.
- ²² Carson's *Silent Spring* (1962), described the impacts of pesticides on various species, including the thinning of birds' eggshells. It helped to bring about the later banning of DDT but not the principle of pesticide use in US agriculture and overseas.
- ²³ Ehrlich's *The Population Bomb* (1968) was widely criticised because some of the more extreme scenarios depicting mass starvation as early as the 1980s did not occur. What the critics tended to miss, however, is that these were not predictions. Far from being naïvely neo-Malthusian, Ehrlich and his colleagues have continued to draw attention to the ways that population growth continues to exacerbate other problems. But this work has remained politically unpopular to this day and remains widely misunderstood and ignored.
- ²⁴ Herbert, 1970. In his passionate introduction to the book, this celebrated SF writer set out his views about overpopulation and widespread environmental decline. Quoting from one of the characters in his novel *Dune*, he wrote that 'beyond a critical point within a finite space, freedom diminishes as numbers increase. This is as true of humans in the finite space of a planetary ecosystem as it is of gas molecules in a sealed flask. The human question is not how many can possibly survive within the system, but what kind of existence is possible for those who do survive' (p. 6).
- ²⁵ Else, 2008, p. 48. Speth goes on to say that 'Carter took it very seriously and I think he would have done something had he stayed in office. I have a copy of a news story in the *New York Times* in which I called for capping carbon dioxide concentrations at 50 per cent above pre-industrial levels. We're likely to fly right past that number shortly.'
- ²⁶ Hansen, J. quoted in McKie, 2009.
- ²⁷ Hare, 1990, p. 39.
- ²⁸ Birch, 1976 (revised 1993), p. 39. This book remains the most comprehensive and useful book ever published on this subject. It is now out of print and largely forgotten.
- ²⁹ See Slaughter, Australia's Commission for the Future, in Slaughter, 1999a, pp. 165-208.
- ³⁰ Hamilton, 2007. Hamilton's research shows in detail how the Howard government allowed 'big coal' to run the show for close to a decade, leaving Australia years behind in the race to develop energy alternatives. He also shows in some detail how the same government actively attempted to undermine the Kyoto agreement while, at the same time, pretending to be responding to climate change in other ways.

³¹ Meadows et al., 1972.

³² Both published by the World Watch Institute. See <http://www.worldwatch.org/>

³³ Catton, 1980.

³⁴ At no time has this culture of venality and deception been more fully exposed than during the global financial crisis of 2008/9.

³⁵ This sad story is told in Slaughter, Futures education: Catalyst for our times, in Bussey et al. 2008, pp. 57-72. It provides an outline of the project carried out for the Board of Senior Secondary School Studies, Queensland Department of Education, in the late 1990s. When I asked a later Education Minister about the episode, he was unable to explain it.

³⁶ Aglionby, 2005.

³⁷ Sheridan, 2008.

