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(The Purpose and Progress of Business)

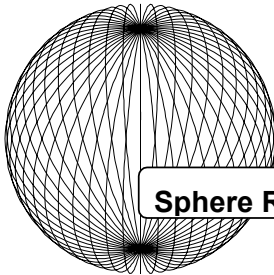


walter shawlee 2



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The Purpose And Progress Of Business
By: Walter Shawlee 2



Sphere Research Corporation

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We are all in one boat,
No matter how it looks from where you are,
Or what else you think may be true.

It's by far the most difficult lesson to learn,
But once you understand it,
It's the hardest thing to forget.

As you get smarter and more experienced,
The boat gets bigger, but so do all the waves.



- ***This edition is dedicated to: The people that taught me the most about business and finance, Al Singer, Len Guscott, Ed McPherson, Robert Anson Heinlein, Johnny and Scott Davis, Don Turri and Dennys Moore. And especially to the employees of Northern Airborne Technology Ltd., who taught me everything important there is to know about business and people. We had no trouble competing on the world stage from Kelowna, BC. Also to Brad Smithson and the employees of Pacific Insight Electronics Corporation in beautiful Nelson, BC. They all demonstrated that it is possible to do the right thing, live and work the best way, and be hugely successful with the full endorsement of their customers. Sadly, the recipe doesn't survive all events, but there's no doubting at all that it works amazingly well.***
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The best effect of any book
is that it excites the reader to self activity
Thomas Carlyle

The service we render others
is really the rent we pay for our room on Earth.
Sir Wilfred Grenfell

Our task is not to fix the blame for the past,
but to fix the course for the future.
John F. Kennedy

It is not enough to do your best;
you must know what to do,
and *then* do your best.
W. Edwards Deming



In the beginning

There are a lot of reasons for writing this book, not the least of which is that I have promised several people that I would do it. All the ideas here are from my heart, and from years of experience working as everything from a welder & fitter to president and CEO. This is about how business works, what fails, why both of these things are true, and some incidental information that helps give a little perspective to the entire convoluted process. Unsurprisingly, everything is connected, even the things you are absolutely sure are unrelated.

This information is very far reaching, and not just a discussion of basic business, but also the underlying philosophy, history and external systemic problems. It isn't something meant to be quickly read and forgotten, idly discussed over a few beers. This is something you can come back to later for help or explanation, and serve as another hand to give you that extra push when you

really need it to do the right thing, but know that it's going to be very hard to buckle down and do it.

It is *not* a collection of sixty-second solutions, or fast fixes for complex problems. Those problems took more than 60 seconds to create, and they will take more than a minute to fix, so adjust to that reality early on in this enterprise. This material will help you understand the problems you face, and (hopefully) give you some insight into their causes. ***Your own good judgment will provide the solutions you need***, and that judgment ***requires constant exercise and use*** to keep it good. If you become intellectually lazy and look for prefabricated, shallow solutions, you cannot help but do very poorly.

One thing that I already know for certain about these ideas is that you will never think in quite the same way after you have read them. They are contagious, insidious, subtle, irritating, persistent and pervasive. They can't change who you are, but they ***will*** change how you act in an irreversible way once you are accidentally exposed to them. This might be a good time to put this book down and go back to watching doubles beach volleyball on TSN if you don't appreciate how traumatic that could be for your career and your life ahead.

I am deeply indebted to several people who took a lot of their time, either directly or indirectly and unintentionally, to teach me what is really important about both business and people. I can't write this without thanking them: Al Singer, Robert Anson Heinlein, Len Guscott, Johnny & Scott Davis, Dennys Moore, Don Turri and Ed McPherson.

I am also very grateful to have read W. Edwards Deming's "***Out of the Crisis***", David Halberstam's "***The Reckoning***" and Donald Norman's "***The Psychology of Everyday Things***" (now re-titled in paperback: "***The Design of Everyday Things***") at just the right moments in my life to be truly useful to me. I would certainly recommend them to anyone, if you can find copies of these not-so-common but exceptionally important books.

One of the best things about business is that you make some friends through it that become truly important in your life, and they eventually affect the way you think and what you do. I also appreciated that they didn't laugh right out loud after the first reading, except at the right parts.

I hope you find something useful here, and I wish you all the best. And yes, of course I know it is much easier to *give* good business advice than it is to *follow it*. This book is deliberately short, because I don't think more pages and distraction are needed to explain what's here, and because I want you to *finish it*. You can do this all in a quiet afternoon if you put your mind to it. When you are done, you will probably be able to answer most of your own questions.

What do I want? I would like to feel that I didn't waste my life. I also hope to live well and with some art, and avoid dying badly, wastefully and foolishly without having made at least some small improvement here while I had the chance. This is just a small part of that effort.

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Experience is what enables you to recognize a mistake
when you make it again.
Franklin P. Jones

The unexamined life is not worth living.
Socrates

Man prefers to believe what he prefers to be true.
Francis Bacon

The road to hell is paved with good excuses.
Walter Shawlee 2

Are we civilized, or just organized?
Walter Shawlee 2



Why should you take my word for anything?

Always a difficult question, and one for which there is just no simple answer. A certain element of faith is required in the transfer and acceptance of information, regardless of anyone's specific credentials and experience.

I have worked at all kinds of jobs; selling surplus electronics, assembling everything from Volvo seat belts to gas tanks as a union welder and fitter, sound system service technician, rental car agency clerk, computer field service engineer, grocery clerk, avionics technician, and incidentally, president of several companies. I was a National Merit Scholar, went to UCLA, but didn't graduate, and also went to BCIT to study building construction and the IBM Education Center in LA to study unit record accounting machines. I started working part time when I was 14, weekends and summers, and somehow I just never stopped.

In later life, I was a representative on several international trade missions for the Canadian Government, including California, Singapore & Japan, and one private trade mission to Taiwan. I also worked for the provincial government on a session of "Opening Doors", a TV show to explain international trade, and have put on several SPARK sessions for the BC Science Council on how to conduct export trade. It would be fair to describe me as determined when it comes to business; I spent five years to close one account in Japan, and I finally did it. It was worth every minute of that time to me.

Along the way, I started an avionics company (Northern Airborne Technology), a multi-user computer software company (Arctic Data Corporation) and a printing company (Eagle Printworks) with a variety of partners. NAT did very well, and was sold in 1992 to a UK firm, FR Group, for about C\$2.6M. Arctic Data did so-so, and was sold a few years ago to the sales manager for about C\$0.1M. Only Eagle did poorly, and was eventually closed, with a loss of about C\$0.4M. Variety is one essential aspect of an interesting business and personal life.

In business, we won a BC Export award at NAT, two McLean Hunter Software awards at Arctic Data, and the one I like the best, a Workplace Excellence award for NAT from the CMHA. They felt we were the best place to work in BC, and while I am forced to assume they did only the most *cursorly audit* to reach this decision, I nonetheless agreed with them completely.

Now I am largely a private person, with a small company called Sphere Research Corporation, that solves complex problems for people in simple ways, and sells slide rules on the internet through a strange website called the *Slide Rule Universe* (<http://www.sphere.bc.ca/test/sruniverse.html>). I finished my two year term as chairman of the local BC Science Council arm (OSTIC) in our area a few years ago, and still go around hustling materials and computers for students to use in their science classes and projects. I served on the Canadian Technology Network (CTN), and am a National Institute Associate, helping to

improve the delivery of science education and science funding in Canada. I also received a Canada 125 medal from the Governor General for outstanding public service to Canada, which while probably misplaced, was still appreciated by me.

In short, I have been in most of the everyday work and business situations that you can imagine, and some you will have a great deal of trouble picturing. Such as the time I went up to the Arctic at Inuvik in -65° C weather to work on a new power generation system for an offshore support SRN-6 hovercraft. It was so cold, I found I couldn't even unroll the spool of wire I needed to do the work. I also foolishly went to Dead Horse, Alaska for a similar job several years later on another, even bigger hovercraft, where it was just as cold. I was not a fast learner, it seems. As an extra surprise on that last job, and as a test from life to see if I was ***really paying attention***, our truck's electrical system went dead halfway between the airport and base camp in total darkness. Great. A true object lesson in the critical importance of vehicular quality in times of great stress.

For almost 30 years, I have been ultimately responsible for the operation of several companies, and went through every phase of those firms, from ground zero start-up to sale or closure. I had the chance to make a huge range of errors, and experience an equally diverse number of deeply enjoyable moments and successes.

My customers have been everybody from private individuals to major firms like Aerospatiale (now Eurocopter), Motorola and Bell Helicopters, as well as government agencies like the Canadian Coast Guard, RCMP, Japanese Maritime Safety Agency, DND, USAF and CSIS. I've designed communication systems for air ambulances, welded brake levers in a factory for Volvo and SAAB, sold surplus electronic parts and put groceries on shelves at 3:00am in the morning for Safeway. Hopefully, I learned a few useful things along the way, and all of them that I can remember or explain well are in here.

I have also spoken to lots of students in their classes, or on tours through our plants, to try and understand what's on their minds, and to let them know what we might expect from them later on in their working lives. Of all the things I have done in my business career, this is the only one I think was *truly important*, and the only one that made me sad and depressed on a regular basis. I also taught one year at the College of New Caledonia, and served one term on the Board of Okanagan University College. Neither of these activities cheered me up very much, for reasons that will become clear by the time you are done reading.

This is in no way a historical piece, and I have used events that involved me directly only to help illustrate a point that I consider especially important. Both good and bad things have happened to me in business, and that proved to be pretty useful, as the significance of many things only becomes apparent when they go wrong. It's hard to really learn anything without making a few mistakes, but it's certainly unwise to make the same serious ones too often.

I hope you will find this credible enough in the way of experience to take what I have to say to heart and keep right on reading.

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Nobody is too old to learn,
but a lot of people keep putting it off.
William O'Neill

After all is said and done,
a hell of a lot more is said than done.
Clark Olmstead



Figuring out why you are in business

This is an issue that still astounds me after all this time. For years, I used a simple questionnaire when I go to speak to any kind of group, whether kids or adults. I explain to them that this is *my fee* for telling them what I know. They have to tell me what they think on a few issues in return for my time. This is, after all, the very *essence* of commerce, exchanging things of value.

The unfortunate thing that comes out in these discussions, and many others I have had with different groups, is how little people really know about business. I don't mean things like how to compute profit (although this *clearly* is not a very well understood concept) or how to develop a business plan, but essential basic things like:

- What is the purpose of a business?
- Why are you in this business?
- Who are your customers?
- Why should people do business with *you* as opposed to someone else?

- What is your greatest asset? Your greatest liability?
- Who are your competitors?
- How can you make your business better?

It would seem to me that if you can't answer these questions well, you are not likely to be much of a success in business, and you will probably never really know why. These are not complex issues, and since man has been engaged in well-recorded commerce of some kind for at least 7,000 years, it is hard to credit that those wishing to be in business have managed to skillfully avoid this information on a regular basis. Nonetheless, it seems to be so, and business records and daily news broadcasts document those wide ranging failures on a regular basis.

It is an unfortunate aspect of modern life that we tend to venerate the trivial and ignore the critical in almost all our calculations. Our focus is far too often off the important point, and laser-like, brilliantly illuminates what is popular, concentrates on a snappy sound bite, or fits the preconceived “issue”, while avoiding any attempt at understanding the real drama unfolding in front of us.

What is the result of not knowing or acting on this information? Usually it appears as widespread erratic performance throughout a company, and deteriorating prospects for everyone involved. It includes systemic unemployment, ongoing labor conflict, erratic prices, profits and business failures.

- **A quick look at just how business has been working so far**

1999 and 2000 saw a new phenomenon, rapidly shrinking unemployment, in some cases skating as low as 3.8% in certain US markets, as an overheated technology market sucked up every available skilled person. This illogical market explosion was fueled by Internet related firms burning with dreams of staggering profits, wireless communication industries and wildly unrealistic stock market expectations. Interestingly, the air has now leaked out of those fantasy balloons, and the stock market contraction, especially on the NASDAQ, has once again rinsed billions of dollars from the economy, which means, incidentally, that it came out of some unhappy investor's pockets. The NASDAQ lost 38% of its value in 2000, and opened in 2001 with many of its stellar players like AT&T and Microsoft down 60% or more from only a year before. Once topping 5000 during the height of the Internet folly, the NASDAQ drifted around 1400 in mid-2002, an astonishing drop, and at mid-2007, finally hovered around the 2600 threshold. At the start of 2010, it's fallen to 2150.

2001 saw most internet or "dot-com" businesses explode in a shower of fiscal fallout that would eventually dampen the entire technology sector, and subsequently shatter the telecom industry that had been delivering the delivery infrastructure to the new internet world.

The idiotic Internet model of businesses that spent a fortune on promotion, but delivered little if anything, has mainly gone up in flames, but only after consuming many fortunes and creating many casualties along the way. This was completely predictable, but hope springs eternal for that incredible deal that makes you wealthy without any deliverable work or value on your part. The slim business experience and unbridled greed of all involved pretty well insured failure, as no real effort was expended on the

most basic of issues: what customers want and how to equitably satisfy that need.

In this volatile environment, JDS Uniphase and Nortel would post operating losses so large that their equal had not been seen before, in the 10's of billions of dollars PER QUARTER, and they shed over 50,000 high tech workers. Stocks that were in the \$120 and \$220 range would fall to the under \$2 dollar level, stunning many investors, and wiping out the retirement savings of tens of thousands of people. It drifted in the \$2-4 range for over a year, and only in the beginning of 2004 climbed to over \$6 a share.

Widely held Nortel essentially dissolved in terms of share value, due to the collapse of the hyper-inflated dot-com world, and a general slowing of telecom infrastructure deployment. JDS Uniphase, a flagship fiber optics supplier to the telecom and Internet world did the same. Even by mid-2007, both companies remained at a tiny fraction of their supposed previous worth, despite a rich technology portfolio and wide industry acceptance. In January of 2009, technology giant Nortel finally filed for bankruptcy protection, and was broken up and sold. JDS Uniphase has recovered after selling off some assets, and is still operating, but at roughly 1/100th of its former high share price in 2000.

Lucent, the technology treasure house of Bell, was spun off as a supposedly self-sustaining entity, presumably to create even more value, and then fell almost as hard as Nortel, plus it left Bell stripped of its powerful R&D capability that had guided its business directions for decades.

CNN reported that US\$350 billion dollars of value was lost in mutual funds in the year 2001 alone. This was a staggering drop in market value, and had as one of its most appalling stars, the featured collapse of Enron, the energy brokering giant. In this collapse, shareholders were left with virtually nothing, internal officials seemed to earn huge bonuses, and the other employees

found their pension funds locked and un-tradable (filled with steadily decreasing-in-value Enron stock). The fall out from this single collapse was astounding, affecting many retirement investments, and ruining the lives of thousands of people.

April 24th of 2002 had an interesting economic tidbit, AOL-Time Warner, the “synergistic merger” of on-line internet and entertainment/publishing companies, posted the biggest loss in corporate history, an incredible ***\$54.2 billion dollars***, as reported by CNN, also owned by AOL-Time Warner. This loss was caused by plummeting market values of the company and its acquisitions, and would be repeated later by Vivendi as their excesses finally caught up with them.

The science was fine in these companies, only the business expectations and the projected insane endless growth curve were misguided.

2005 would see GM skirt financial collapse again, staved off by selling their slow moving inventory at "employee discount" prices. This strategy generated no real profits, and further eroded unit and re-sale values, but provided much needed sales cash from a stagnant inventory and a product line hard to sell and clearly out of sync with exploding fuel prices. 2005 also marked the announcement of thousands more layoffs, more plant closings, and a serious tumble in corporate standing and market share at GM. 2006 found both GM and Ford in even worsened positions, as high fuel prices further eroded their market share, and increased their losses. Tragically, for Ford, fiscal 2006 would end with their posting of a US\$12.7 billion dollar loss, and the announcement of a draconian restructuring plan that shed 45,000 jobs in North America and closed a dozen facilities.

In an interesting turn-about, both GM and Chrysler would teeter on the verge of bankruptcy at the beginning of 2009, and then Chrysler would file in May of 2009, on the condition of a merger with Fiat, and GM would file for chapter 11 bankruptcy protection in June. This came even *after* billions of dollars in

direct government aid. In contrast, Ford refused government aid, and continues to operate and even improve in the worst economic climate of decades, and has surprised many with the strength of its recovery.

Even cities and municipalities have not been immune to re-evaluation by market forces or the impact of unexpected events. California's conservative Orange County was forced to seek Chapter 11 bankruptcy protection at the end of 1994, after being crippled by risky investment losses of almost US\$2 Billion. It is worth noting that many state, municipal, provincial and federal bond ratings are also deteriorating rapidly as they are seen to be increasingly poorer long-term financial risks by potential investors.

In 2010, there is now discussion that some countries, states and large cities may face some form of bankruptcy or default (sometimes referred to as Sovereign Default) as their tax revenues continue to collapse at the same time their expenses rise due to high unemployment and needs for social services. The cash-strapped state of California began issuing promissory notes to some creditors in 2009, as its budget deficit rose over US\$42 billion, while unemployment went over 12% (unofficially almost 20%).

Sudden unemployment of both highly trained and low level staff has become an institutionalized fact in modern civilization, as companies resize, downsize, re-engineer themselves, right-size or collapse. As industry tries to adjust to changing conditions and competition, it is discarding many values and social responsibilities as inconvenient, and people have become secondary to business decisions, or government ones. Homelessness is no longer an aberration in North America, it is now measured in millions, and accepted as an inevitable issue and part of our culture.

Nations all over the world enjoy record deficits, as do many companies that *far outweigh their ability to repay in a practical*

way without resort to heroic and somewhat desperate measures such as *devaluation or default*. As just one example, the commercial airline industry in North America has lost more money in the 1990's than it has generated *in its entire previous history*. Selling a few more seats per flight or giving them away for air miles is not going to quickly fix that situation. November of 1996 brought Canadian Airlines and its 16,000 employees to the brink of bankruptcy, with only the promise of employee wage cuts and hundreds of millions of dollars in government loans between the company and closing. 1999 led to a pivotal decision threshold for both Air Canada and Canadian Airlines that required merging or collapse. The forced merger of these two struggling airlines was very unsuccessful in 2001, and is driving the surviving Air Canada into continuous losses, while reducing the service and choice nationwide for Canada.

Canada was rocked in early 1997 by the announcement that Eaton's, the country's premiere retailer, was seeking bankruptcy protection, and would have to re-organize, probably in a much smaller format. Literally an institution in Canada, with some landmark retail centers in major cities like Vancouver and Toronto, this announcement was a very sobering moment in Canadian business. Eaton's deteriorated painfully through the 90's, and finally slid into bankruptcy and liquidation in mid-1999, ending a very long run as a family held business. Other major retailers with massive market capitalization and enthusiastic launches also disintegrated under the relentless pressure of 90's market forces, including Incredible Universe and Doppler.

Huge layoffs have become a regular occurrence, with thousands cut from IBM, GM, Ford, Digital Equipment, Chase, Apple, Boeing, Enron, JDS Uniphase, Nortel, Global Crossing, and many others. In the summer of 1995, on the same week as the release of the long awaited 777 airliner, Boeing also announced thousands of staff layoffs. Major retailers have been devastated, and scramble to re-organize and restructure in the face of disappearing customers and unsalable goods. High tech firms are

not immune, nor are other investment darlings like Bio-tech or entertainment.

Even Japanese firms like Toyota or Pioneer which have had a post-war tradition of strong corporate loyalty and no layoffs have been forced to trim their workforces seriously for the first time, and not just with inter-company transfers between keiretsu members. Even the best known Japanese flagship company in North America, Sony, was hit with multi-billion dollar quarterly losses at the end of 1994 due to its unhappy and unproductive adventure into the movie business. Sony has survived, but since 2005 is now highly dependent on **its game consoles for profitability**, a very delicate balancing act in a volatile market, and a strange turn of fate for the technology giant.

Billion dollar bank failures, such as BCCI or England's Barings, not to mention the endless string of Savings & Loan failures in the USA, clearly underscore the fact that all is not well in the business community on both the economic and ethical levels. Canada was shaken in mid-1994 by the collapse and sale of Confederation Life, one of its largest and oldest insurance companies. These failures have had the secondary effect of wiping out much of the retirement savings of many seniors, further complicating an already unattractive economic situation. In 2009, the situation had still not improved, and the Wall Street Journal reported that 140 banks failed in the USA during the year, at a staggering cost to the FDIC, actually putting it in a negative balance to the tune of US\$8.2 billion in the 3rd quarter of 2009. An additional 13 failed in the first month of 2010, and 700 banks are now on the government "watch list" with dangerously high losses.

How about Money?

International currencies have fluctuated wildly, and the supposedly indestructible pound sterling was devalued in 1993 to the *complete shock* of everyone in Europe. In the former Soviet Union, new Russian Rubles traded at over a *thousand to the US Dollar for most of the 90's*, a far cry from the official Soviet Union *parity* of only a few years ago. The rate has plunged so far and so quickly that it has only one real parallel in history, the destruction of the German Mark in the 1930's, which eventually helped ignite World War Two. This is a story that may repeat itself in a brand new setting if economic conditions continue to deteriorate. Soviet economic performance has become so poor, and its economy so distorted by crime, political graft and favoritism that it has almost no chance of recovery without near catastrophic political upheaval. 2000 saw revived nationalism, and an economy that continued to sink into a feudal model controlled by a few, and benefiting none in the long run. Putin faced incredible problems in 2001, and Russia remains one of the most troubled players in the world economy in 2005, even with access to the G8 summits. It has no history of economic success or skill in business, which is making it very hard to function in an unforgiving capital-driven global economy. Its gold, natural gas and oil reserves may yet save the country, but only if that economic benefit spreads widely throughout the country.

From early 1994 on, the Canadian Dollar traded at almost its lowest level in history against the US dollar, at just over 70 cents, and achieved what no amount of union negotiating could do. It finally made Canadian labor cheap enough to export to the United States at an effective level. In 1999, the Canadian dollar stabilized at about US\$0.66 in about a 3 cent range, and with the fundamental shift in relative value now established, allowed business to function effectively. 2002 saw the Canadian dollar drop further to the US\$0.62 range, but mid-saw a bit of improvement to US\$0.66 due to falling US dollar worth internationally caused by a loss of confidence in the accuracy of

US corporate reporting. The Canadian dollar finally climbed to US\$0.94 in 2007, but it was mainly due to the plummeting value of the US dollar against all currencies, especially the Euro. The US led war in Iraq and huge tax cuts domestically caused mushrooming deficits of over US\$2.6 Trillion in the US by the end of 2004, and totally erased the previous surpluses, leading to a steady decline in value of the US Dollar.

In the first few weeks of 1995, the Mexican Peso was hit by a devaluation of 40% in only days, triggered initially by concern over internal political unrest in Chiapas, but then deteriorating into a generalized international loss of faith in its economy and foreign indebtedness. Looming concern about diminishing oil production (whose taxation is the chief source of government revenues) remains a dark cloud over Mexico's economy.

The Euro enjoyed considerable strength from its creation in 1999, and formal circulation in 2002, an almost unimaginable monetary union of 12 disparate European countries, mainly keyed by Germany and France. It rose above the US dollar, and reached significant power, rising almost to US\$1.60 in 2008. Since then, it has tumbled as low as US\$1.25 in November of 2008 with sub-prime mortgage losses tied to national banks, and rebounded to US\$1.50 at the end of February of 2009. In 2010, the currency has come under serious attack as member nations such as Greece, Italy, Spain and Portugal have suffered such serious budget deficits that the currency of all is seriously in jeopardy. Greece has further magnified this problem because of many complicated financial maneuvers to disguise the true scope of the deficits from other EU member nations.

The next period will test the European Union seriously, as sovereign default by one or more of its members has to be considered as a real possibility. Early 2010 sees the Euro down to US\$1.35, and it is unclear what lies ahead for them and the Euro until the fiscal problems of the member nations can be corrected.

What is really going on here?

Is this just the physical manifestation of the greed and stupidity of some powerful individuals, or does it reflect more serious systemic mistakes as well? Does it suggest that some things are fundamentally incorrect in approach or focus? One thing is certain, popularly taught business principles and strategies are not really working except for the vanishingly small numbers who manage to gut the world economy, line their pockets and somehow avoid prison.

When we had high interest rates, economists and politicians were certain that a shift to low interest rates would cure everything significant that was wrong with the economy, stimulating business growth and capital acquisitions. Once we had the lowest interest rates in twenty-plus years during late 1993 and early 1994, suddenly the allure of interest rates as a panacea waned, and now economic problems appeared to be tax or government policy related. Even lower interest rates were world wide in 2003 through 2005, but the US economy continued to sink deeply in debt, and has lost millions of manufacturing jobs since 2000. In real life, the *problems remain unchanged* and the significance of all these *largely irrelevant economic issues* is on a par with rearranging the deck chairs on the Titanic in terms of keeping us all afloat.

In 2000 and 2001, and continuing through 2005, interest rates remained at very low levels, fueling stock market investment in the endless quest to get higher returns than banks can provide. Being awash in cheap money also devalued everything world-wide in absolute terms, and drove up the prices of key items like housing so far that housing became essentially unaffordable for everyone on a global level.

That rampant and uninformed investment drove the Dow to absurd levels over 14,000 in 2007, despite mediocre corporate performance. Stocks traded at perilously high multiples of earnings, and endless churning through buyouts, mergers and

takeovers throws off billions of dollars that come from the pockets of small investors, and concentrates them in ever fewer hands as time goes on. It was frightening to speculate on how this systemic inflated valuation could possibly survive even modest economic disruption.

In fact, 2008 and the sub-prime mortgage fiasco triggered a massive sell-off in the stock market, triggered international banking failures, and the end of many Wall Street firms. The Dow dropped to roughly 6630 by mid-2009, losing over half its share value. The far reaching bank problems from these nicely bundled and securitized, but wildly over-valued “CDO’s” (Collateralized Debt Obligations) would propagate through the world’s banking system like wildfire, requiring billions of Euros in government support, and almost bankrupting of all places, Iceland. It was a dramatic illustration of how tightly linked the world economy is, and how pervasive the effects of fiscal sins can be.

From 1999 to 2002, and again in 2008-2009 hundreds of billions of dollars would disappear from equity markets, as the superheated stock market, eager for any promise of returns, would lure in customers, and in the end, deliver nothing but losses on their investments.

It helps to remember that the “Dow, Dow Jones Industrial Average, or DJIA” often cited is merely a weighted industrial cross section of **only 30 stocks**. No matter where the Dow level goes, it says nothing about the stock **you may hold**, or of the thousands of other stocks on the exchange. People often find it astonishing that the Dow climbs while their investments disintegrate, but remember that it is NOT a composite of the entire exchange, it is just a very tiny (and elite) sampling of the entire offering, with very strange weighting considerations that change at random, and invisibly to you.

- **Some key issues to consider**

To further complicate our mutual lives, *we have automated and accelerated many economic and financial processes so that natural delays and pauses have disappeared from our systems, making the entire world culture more volatile and prone to damage.* This affects everything from the stability of financial markets to the spread of disease, and is rapidly reducing the fundamental survival ability and robustness of our global culture, while replacing it with the highly inappropriate illusion of progress.

There is no doubt in my mind that two things are true today: First, we aren't doing a very good job at anything *important*. Second, things will get significantly *worse* if we don't pay better attention to what *is important*.

Of all the things that are taught in modern civilization, business receives the least critical attention and enjoys the most humble social status, yet on it turns the daily welfare of every individual on Earth. Without business, we do not eat, we have no place to sleep and could not cure even the simplest illness. Power and heat, food and shelter, even how we think of ourselves, are all aspects and products of everyday business and commerce.

Certainly, we study money and finance. For many people, this passes as an in-depth analysis of business, which is a fatal mistake, since *the tracking of money is not the thing that creates it.* Accounting, business management and economics all substitute for this fundamental knowledge, steadily worsening our misfortunes.

We are experiencing this far reaching difficulty in business and commerce at every level because people *have simply lost sight of the important issues and concepts that drive business and civilization in the first place.* Once you have forgotten *what you*

should do and why you do it, exactly *how you do it* simply isn't very important.

Business and commerce is all about the *mutual satisfaction of needs between the vendor and consumer*. It revolves around the fundamental issues of fair transaction and equivalent value.

It is equally important to recognize that the same essential fair exchange and mutual satisfaction of needs that drives business *also drives government*. *Government is merely a special business case in which the entire population has ownership in the corporation*, and it must pass the same functional test to remain in existence. Every government on Earth has eventually forgotten this simple fact, to our very serious detriment and considerable suffering. *People do not exist to serve the government; the government exists only to serve the needs of its citizens, and nothing further*. This will come as a complete shock to most politicians.

The other critical issue is to understand in all of this discussion is that *all money is really a cooperative fiction we have agreed on for administrative convenience*. To focus on something so insubstantial and transient at the expense of what creates it in the first place is a tragic and fatal mistake, as recent economic events clearly show.

Never lose sight of what has real value and what is *just convenient* or transient when you are evaluating any situation, whether in business or personally. Some days it can be very hard to do that, but it remains the only avenue to real solutions.

As a truly dramatic lesson in values, 2009 saw the literal collapse of international banking, finance and stock markets, triggered by a melt-down in sub-prime mortgages that in turn revealed an almost endless string of deception and mistakes in every financial market. Idiotic fictions like CDO's, endless derivatives and meaningless stock and bond ratings helped fuel a catastrophic loss of market value. An estimated US\$50 Trillion

dollars disappeared from world markets as a result, and the Dow industrial average lost over 50% of its value, as did the S&P 500, and the Nasdaq. As of March 2009, the Dow sat at a 12 year low of only 6626, the S&P 500 at a low of 719, and the once high-flying NASDAQ at only 1358. What started as a “downturn” quickly escalated to a world-wide recession, and is still with us in 2010. Ethical lapses started the ball rolling, greed multiplied it to an incredible level, and then fear propagated the collapse. And it is not over, we remain far from the real value of items, so there are still many unpleasant financial and economic shockwaves to come.

● 3

Our problems cannot be solved
by the same level of thinking that created them.
Albert Einstein

All progress depends on the unreasonable man.
George Bernard Shaw

When we all think alike, no one thinks very much.
Walter Lippmann

In our best institutions, promises are kept
no matter what the cost in agony and overtime.
David Ogilvy

One cannot, as it turns out,
fool any of the people any of the time.
T.J. Peters & R.H. Waterman Jr.



Purpose first

Learning about business sometimes seems to be an unpleasant choice between the retelling of anecdotes and very dry micro- and macroeconomic concepts. This is hardly a rich and compelling selection for you to pick from for an evening's entertainment. There is no clear, widely available entry level curriculum for people that want to be in a business, whether as employers *or employees*, and this usually leads to a considerable degree of unpreparedness and confusion in both

essential groups.

This is a book about the *why* of business. There are no lists of snappy one minute shortcuts to success, how to dress for maximum business effect, or wry and pithy tales of business tragedy. This is an *explanation of what makes businesses work and fail*, and *why* those circumstances take place. Some history

is needed, more for credibility than effect, and because frankly *to be ignorant of history is exceedingly dangerous for all concerned*. For, despite the rapid pace of technology, there remains very little new under the sun in essential terms. It is all just happening to us a lot faster as time goes on, which sometimes gives the false impression of fundamental change.

In our daily lives, a surprising impact is made by business, even if we think we somehow live detached from it. Every product we buy, every service we use, the place we live, and what we wear and eat are the *direct results of business*. Economic policies, political power and sometimes life and death are the direct effects of business. It is fair to say that ever since some caveman decided he would trade a few berries for some meat down by the fork in the river, the course of human history was irrevocably changed and business in all of its manifestations was here to stay on some level.

No error is made more frequently in business than *failing to understand its purpose*. It seems hard to fathom that this could be the case, considering the length of time the human race has had commerce of one kind or another, but this single error re-occurs with alarming frequency and depressing regularity.

During presentations to businessmen, engineers and students, I have had the opportunity to survey them over the years on a variety of topics, but I always manage to ask this same question at some point:

What is the purpose of business?

If you guessed that the majority of answers to this question have been some variation on the phrase, "**To Make Money**", your guess would be quite accurate. It is common to get this answer from 85-95% of those asked, regardless of audience demographics, and there seems to be no clear improvement based on experience or training.

Unfortunately, this answer is ***completely incorrect***, which means that 85-95% of those in business are making a series of decisions in their business based on serious structural errors. In addition, it also means that ***this fundamental mistake is being presented as correct*** to people entering business at all levels, often with serious and tragic consequences.

When I comment that this popular answer is incorrect, there is usually a lot of depreciative snorting, hooting and general indignation. My best illustration of the complete fallacy of this position is to ask anyone busy snorting for \$10. They seem dumbfounded by this request, but I point out that I am in business, and ***I want to make some money***. Since it is pretty clear I am ***providing nothing*** for this \$10, I don't usually get it, but the point is clearly made to anyone paying attention.

It can be very simply demonstrated that the ***purpose*** of any and all business (not to mention Governments, but that is another, even unhappier story...) is ***to satisfy the needs of its customers***. Businesses that ignore this fail without exception, although this event may be offset in time, or give another physical appearance. Businesses that do this in a fiscally responsible way flourish, and those that lack good financial skills may be temporarily popular, but fail nonetheless.

I have only been able to identify two businesses in recorded history that could be construed as having as their purpose "to make money", and those are the national mint and organized crime. In all other cases, ***the essence of commerce is that the customer receives something of suitable value in exchange for his or her money, goods or time***.

When I get answers involving money, I always like to ask how people intend to put this into practice. Do they intend to go up to a customer and just ***ask*** for \$50? No? Well, then will they just send out bills to everyone in the city? This is now a popular fraud scheme all over North America, just as a point of interest.

Clearly we are dealing with some very lazy crooks in this particular case.

Sooner or later, we get to the point that the customer must **get something** for that money, or nothing is going to happen. And the something they get must be what they **want**, or they aren't going to buy it, especially not a second time. If we are prepared to stipulate the existence of more than one business on Earth (which is a fairly safe bet), then we can readily see that the one that is more attractive to the customer (whether on price, quality, service or other factors) is going to **get** the business. The one that does not satisfy the needs of the customer in these areas will **not get** the business. While simply doing business is no guarantee of success, **not doing any is a fairly regular precursor to failure**. In very short order, the one company with no business will find itself gone, while the other firm will prosper. Making money never enters into the situation, even obliquely, **only satisfying the customer's needs makes the critical difference**.

As soon as money falls out of the equation, there is always a cry of anguish from several quarters, and my sanity or business acumen is quickly called into question, usually by people who use money as the only measure of corporate success and health. Unfortunately, tracking money does not reveal anything about a company other than its consummate skill at making bank deposits. It does not reveal **anything** about customer satisfaction, product quality or future viability, service perception, critical random events, market viability or upcoming competition. Any of these factors can potentially **eliminate a company** in a quarter or less, and **none** are revealed by financial statements. History is chock full of business enterprises (as we noted in detail earlier) that can make money for some period, and then fail completely, usually consuming the original earnings in the process.

Many strong companies were sorely shaken in 1992 and 1993 by a lack of customer support. They read like a list of the Harvard MBA class models, and include IBM, General Motors, EdPer, Toyota, Campeau Corporation, Olympia & York, Cypress

Semiconductor and Compaq. The same simple strategic mistake was made in all these firms, the profits came before the customer's needs, and the response in the marketplace was quick and savage. On a less public level, a staggering number of smaller firms were also hurt, and many were put firmly out of business. The trail of well known company names destined for receivership through the 1990's and into 2002 would eventually include Eaton's, Baring's Enron and Worldcom, plus a tidal wave of dot-com and internet related businesses.

Doesn't money mean anything? It certainly does. It is an easily measured way to track how you are doing with regard to your pricing, cost control and expenses, and indicates whether you can ***keep on doing it*** for much longer. The key issue to keep straight is that making money is ***not the purpose***, but is ***a requirement for business to continue***.

The minute a company's purpose is deflected from the correct focus on the customer, financial deterioration is inevitable. The key managerial task is to fully understand this cause and effect relationship, and not to reverse the position of these two issues.

Each party in a transaction must feel there is a ***benefit***, or there is simply no reason to do the transaction in the first place. Fifth graders intuitively understand this when trading things from their lunch bags, but adults seem to have tremendous trouble with it, and constantly try to implement lop-sided businesses transactions of every imaginable kind. The customer needs to have his functional requirements satisfied, wants to be treated well, and feel that the price was suitable for the service or goods received. The vendor needs to earn enough from the transaction to fund continued business, also wants to enjoy the transaction, and wishes to take pride in serving a customer well. No magic hiding here.

The fullest possible answer to the question "What is the purpose of a business?" is then:

**The purpose of a business
is to satisfy the relevant needs of its customers
in a mutually beneficial manner.**

I usually leave out the “relevant” because it’s so obvious, but not everybody understands that, so it does no harm to be there.

It is pretty unlikely that customers *desire* bad service and poor value. That they often get it is an absolute certainty. It is this misalignment of desire and result that is at the root cause of most business failures, and represents one of the most irritating aspects of modern economic life.

The health of any company is *critically dependent* on the goodwill and satisfaction of its customers. Even in circumstances of virtual monopoly or market dominance, it is an issue that cannot be ignored for very long. Even the telephone companies and TV networks eventually learned this powerful lesson. In fact, monopolistic situations have *the most at risk*, since the reaction to a change in market circumstances, such as new competition, often triggers a far larger change in customer support than may really be justified by circumstances. This holds true in both business and politics, and certainly caught the phone companies, TV networks, political parties, cable companies and postal services of North America by surprise.

The Internet and the pervasive influence of e-commerce and email is the next enormous wave of economic change that will shake every existing business and commercial relationship on Earth. It is likely that the impact of this direct relationship world wide between producers and consumers will alter the structure of commercial activity profoundly, but all the key issues we are discussing here will remain just as relevant and important. In fact, they will become even more critical.

E-business works just like any other business, ignore the customer and his or her emotions and desires at your considerable peril. Plus, you can now get slammed on every newsgroup, wind up on every Internet news feed, blog and comparison site in real time for that oversight. Welcome to your worst e-nightmare.

Immediacy of reporting and discussion tends to favor the negative or sensational, so companies that are cavalier about customers and quality soon find themselves square in sights of unwelcome reporting worldwide.

● 4

There is more to life than increasing its speed.

Mohandas K. Gandhi

A doctor can bury his mistakes,
but an architect can only advise his client
to plant vines.

Frank Lloyd Wright

Nothing is really work
unless you would rather be doing something else.

James M. Barrie



So, why are you in this business?

This is hardly a trivial question, and yet for many people, it got little thought and often less research when they started working. I have certainly made the mistake of not asking myself why I am in some business enough times to understand how easy it is to ignore, and then experienced how ugly it is when you do finally investigate the situation. Whether you are viewing this issue as an employer or employee, it is very important that you consider this decision with some care. You will spend the *majority of your adult waking hours* doing whatever this activity happens to be, so we can all only hope that it is a choice that you genuinely enjoy. Being in the wrong job for a long time is one of life's true tragedies, and is certainly avoidable.

Once again, when asked *why* they happen to be in the business they are in, the majority of *business people and owners* answer, often thoughtlessly, that it is to make money. This is the very same bad choice that they used for their fundamental explanation

of business in the first place. It is no wonder people are so genuinely poor at their life's work.

People start businesses for all kinds of reasons, frequently because they think they have some trick or opportunity they can seize on, which will make them successful (and rich) quickly. It may be a trendy idea, franchise, single product or other superficial justification for starting that triggers the decision. Once the initial bloom has faded, the underlying amount of work that is really required to sustain and develop a business often overwhelms people, and their new venture fails.

A considerable industry exists to help propel people into business, especially at the franchise and procedural level. Substantial effort is expended to minimize the perception of effort, and maximize expectations from these types of situations, and the results are seldom attractive. ***These forces are always focused on how, and not on why***, and this is the root cause of the difficulty.

You may find that the business you have started is not the one that really interests you or is one that you have the right skills for. My advice in that case is to change what you are doing.

Understand ***why*** you are in business, and what ***the real expectations of your customers will be***. Look deeply into what you are doing, and be sure it can really achieve what you want to do. You may find that many changes along the way are needed to bring everything into focus, and you may change directions completely in the course of this examination. You are not locked into any given course in business, and ***continuous examination of your situation is exactly what you should be doing***.

You need to create a business environment that is functional for both you and your customers, and do it in an area where you have both passion and skill. If you can achieve this, and if you understand why this is the basic groundwork for success, you can solve the operational problems that will come up.

- **From the employees perspective...**

To be certain, for many who work as *employees*, their work is simply an *accommodation to circumstances*. They try and find the best fit they can for their interests and financial needs, and often are reluctant to change for a better position out of fear and uncertainty. Hardly an attractive outlook for 45+ years of your life, having the content of most of your waking hours dictated by fear.

As more work is eliminated, outsourced or automated out of existence by corporate consolidations and failures, the stability of many jobs decreases, further feeding that fear. For those in especially vulnerable positions, such as single parents, the elderly or the poorly educated, their careers pose many problems, and few rewards or moments of satisfaction. For these people, the answer to the question, “why are you in this business?” is all too often only, “to make money” and nothing more.

What an *appalling tragedy*. Skills and talents wasted, careers poorly made and work poorly done. All for the stupidest of reasons.

It is this structural misalignment that leads to unproductive work forces and indifferent products. It generates a deep dissatisfaction at every level, from those reluctant participants within a company to those it serves grudgingly. The point to make here is that there could never be *enough money to pay for a wasted career and unhappy life*, nor can an organization motivated only by money, the ultimate economic fiction, ever achieve anything of significance other than possibly the accumulation of more money. I appreciate that there are those who consider money reason enough, but business history shows them to be irrelevant over and over again, without my ever having to resort to biblical quotes.

To pick a business either to own or operate, or as a career, it is necessary to have some desire for, and interest in, the work it carries out. Training and talent for the subject do no harm, but some degree of *passion* must exist for any level of satisfaction to occur. People pick careers early in life often through family pressure, convenience and historical precedent. People at all social stations often find themselves directed to the careers and schools of their parents with little regard for their interests or aptitudes. In survey after survey, parents of high school kids agree that vocational trades training is useful and essential, but *not for their child*. *Their child* should go to university and become a doctor or lawyer.

As the father of two children, I understand the desire to achieve the best possible careers for my children. My role as a parent is to provide good opportunities & counsel, not *decisions*, for my children. If they do not *learn* to make their important choices well by themselves, then all of our considerable work and efforts as parents will have been completely wasted.

● 5

You can automate the production of cars
but you cannot automate the production of customers.

Walter Reuther

Customers want 1/4" holes, not 1/4" drills.

MBA Magazine



Who are your customers?

One of the real pleasures of my working career has been that I really got to know my customers. No matter what I was doing, I got a chance to meet and talk with them, find out what they wanted, and figure out how to do business with them. Customers can tell you something truly important, if you have the time and inclination to listen: *what they want*.

In many organizations, there is seldom an opportunity to actually *speak with customers*, usually because the company has been organized in such a way as to deliberately insulate internal people from this contact. Voice mail is probably the most unfortunate invention in business history, as it finally severs even the last possible contact with the outside world forever, and makes customers feel *unwanted and unimportant* to a degree that is hard to express in words.

Disconnected people within the company must then try and determine what to make, how it should look, when it should be ready, and what it should cost essentially from reading tea leaves, or its modern equivalent, the customer survey. This doesn't really work as a true analytical tool, as the questions and simplistic method of their analysis *predetermine* the outcome. If

you only ever ask customers if they prefer vanilla or chocolate, you will be blindsided by the competitors offering strawberry and mint.

Contact with customers, at every level of a company is essential. Designers and executives ***need to hear*** from unhappy customers stuck with bad products, before they rush off to produce more of the same in a comforting fog of ignorance. They also need to know what customers like and think is important. Somehow a survey (with all the questions and often the answers neatly predefined) just doesn't convey the anger of a motorist ***stuck on the side of the road*** with a dead car, or users fighting ***yet another*** bad piece of software that won't even install properly. ***Being insulated is just a fast way to end your business without being bothered by all the irritating reasons.***

I recently heard a most astonishing story from a friend, Allen Goodhue. We were discussing some of the situations he has found himself in with clients, and he said that it was now an entrenched business axiom that ***salespeople never pass on customer complaints about product quality to the company.*** It is felt that a salesman who knocks the company's product quality ***has done so only to justify his poor performance,*** and therefore it is considered foolish to the point of being "career limiting" to make such comments. What an incredible catastrophe that is. The one possible point of contact and feedback left with the customer is thus neatly severed, and all possibility of improvement within the company killed off through fear.

One of Deming's most important points was his insistence that fear be driven out of a company for genuine progress and quality to be achieved. It appears that just as in the distant past, we live in an age of "shoot the messenger of bad tidings", a policy certain to significantly reduce important message traffic.

For all the years I was at NAT, I regularly took service calls from customers with problems or questions. They didn't know it was the company president taking their service call, but they were

glad to have someone listen to their problem, come up with a solution, and then make sure it got implemented.

The really nice thing about how we handled incoming calls was that since we *didn't* have voice mail, you always got to ***talk with someone***, and they all knew how important you were as a customer.

Our receptionist Louisa had a wonderful phone manner, and was outstanding at matching up incoming calls to the person that could best help them. She also made them feel that we were happy to have them contact us, no matter what the circumstances were. Every employee knew that if a customer called with a problem, it was company policy (not to mention common sense) that it be taken care of quickly and correctly. Many people in production and R&D routinely got involved in customer calls, and we wanted our staff to experience what customers felt in an immediate and first-hand manner. It was the single most important corporate lesson we had to teach: ***The customer's problems are important to us.***

The very best feeling for me was always to find out that someone else in the company had taken a customer call, and made a solution happen for the customer without a moment's hesitation. Customers really find out what kind of a company they are dealing with ***when things go wrong***. It's easy to talk service when everything is going well, it's another story altogether when it starts to rain crises and heartbreak on an hourly basis. That's when everybody sees what the company really stands for.

We knew our products, and we knew the customer's problems, that made our next product development easy and well focused on ***real needs***, not imaginary ones. We also knew that there were customers (with money) that would buy it once it was made. Whenever a customer said there was something wrong with our equipment, we didn't stop until we knew that it had been completely dealt with, no matter how complicated the issue became. We had our designated allotment of fools call us, just

like everyone else, but they were pretty rare, and even they made it clear to us that things we thought had been well explained and documented weren't nearly as lucid and unambiguous as we *thought*.

Often, our customers saved us from real problems by advising us of situations early enough to make correction in a simple and inexpensive way. This happened because they knew we would listen, and because they knew *we would treat what they said as important*.

What is best for your company? If you have little real contact with customers, you need to find a way to get some, and integrate it with your decision-making. People with design and decision authority need to have *regular customer contact*, and need to see how these customer issues are dealt with once the company receives them. *Customers are the whole reason for your company's existence, and it will serve you poorly to forget it.*

This is the tragic and fatal mistake of many e-business concepts, there is no customer contact beyond inane computerized forms and surveys, no sense of what the customer is thinking or how mad they are about some problem. And the tragedy is that they would be happy to tell you if only you were prepared and able to listen.

● 6

The most common commodity in this country
is unrealized potential.

Calvin Coolidge

Quality is what the customer says he needs,
not what our tests indicate is satisfactory.

Tom Peters

The quality of your work, in the long run,
is the deciding factor on how much
your services are valued by the world.

Orison Swett Marden



Why should people do business with you?

Everyone needs to understand *what makes the phone ring at your company*, and not somewhere else. They also need to make sure that customers feel they have been *well treated*, especially when things go wrong, but also as the normal course of your business. Be sure you know who your customers are, and why they like your firm and your staff, or why they don't. Listen to them, because like them or not, *they are the only source of business you will ever have*.

There is a widely held belief among modern business people that customers are an irritation and a nuisance, and are easily manipulated by advertising and sales promotion. They call with stupid questions and problems they should be able to figure out for themselves, and buy whatever gets put on sale. Usually, nothing could be farther from the truth. Despite falling SAT scores, people still have a well-developed sense of what is

appropriate value or behavior, and when they are getting a bad deal.

They have already struggled with your own errors and mistakes far too long, and have almost given up, but have given you one last chance to ***correct your mistakes***. Don't waste that precious opportunity to show them ***how good you really are*** by treating them badly. The corporate culture under Watson at IBM believed that a customer who called with a problem was a golden opportunity to save a customer and their existing business, and bring in new business. What they feared most was that the customer ***wouldn't call at all***, and give them the chance to fix the problem. Remember: Yours isn't the only phone in town, they actually made quite a few in those factories, and millions have been hooked up and are working that do not connect to you or any of your staff.

Businesses exist in considerable variety and with an amazing range of goods, services and approaches. In the customer's mind, it may be quite ***unclear*** what is better or worse about you, and you may not have done a very good job in conveying this essential information in your advertising or conversation with the customer. Until the difference is clear, and you are perceived to be the ***better choice*** in some way, your business will operate essentially on ***random chance encounters*** with customers, and the ***arbitrary decisions*** that come from those ***chance encounters***.

What makes a customer finally select one vendor, product or service over another? Generally, the mix of factors that makes up the selection decision can be summarized in the following way:

- Need or Desire to Purchase
- Habit or History
- Cost & Perceived Value
- Location
- **Convenience**
- Quality & Suitability
- Ability to Purchase
- Seller Financing

- Impulse
- Timeliness
- Service & Support
- Extraordinary Circumstances
- Chance

These are in no special order, but seem to reflect a practical arrangement of priorities. Many customer surveys for major purchases often rank quality and service/support as primary issues, with price about in the middle, but actual buying patterns do not always reflect this.

Convenience is often a **critical issue** in purchasing, and it may not be so obvious to the vendor that he is inconvenient to deal with **from the customer's point of view**. This may be an issue of location, staff attitude, hours, enough available or accessible parking, product selection, on-line access, phone access, delivery, minimum order quantity or order amount, credit terms or other small factors that become much more important or significant to customers than they appear to be with management. Very small things can be a severe deterrent to customers; it's all a matter of the buyer's perspective.

This issue is **well understood** by convenience store operators and gas stations, but poorly grasped by many other companies, who simply assume that customers will perform whatever extraordinary feat it actually takes to deal with them. This is a very dangerous corporate attitude, and from a competitive aspect, makes the business vulnerable even to very small improvements by competitors in their customer relations or policies.

Each type of item and service has its own pressing set of circumstances that triggers a purchase. If you are low on gas, the **convenience** of the next station is more important to you than the **quality** of their repair facility. If you have only \$2.50, your lunch is dictated largely by **economics**, rather than other factors. If there is a tremendous closing-out sale at some store, you may buy something on **impulse** even though you don't need it at the

moment, and realize you may not be able to get service or satisfaction later. These factors shift position in terms of importance based on each set of circumstances a customer faces, and often produce bizarre outcomes when special or extraordinary circumstances enter into the picture, such as sales, budget priorities or purchasing gifts.

My own experience indicates that people need more than a single factor to be present to make a buying decision. The best situation for both the customer and vendor occurs when the perceived value is high, the business is convenient to do, you have the right product, the service and support make it attractive to the customer, and you remember to ask for the business.

There is now a large trend in retail business to offer brands with high perceived quality (nationally advertised name brands) at very low prices, with minimal support. Marketing usually consists of ads based on price, and piles of product on the sales floor. This is a strong inducement for highly knowledgeable customers to buy, but also leaves many without enough information to make the right purchase for their situation. To some degree, this marketing pattern drives out vendors that are able and willing to give better service and more customer attention, which may be a very unfortunate trend on a larger social level, even though it satisfies the customer's desire for low prices.

You always need to ask yourself whether *you* would buy from your own company. If you cannot honestly answer that you would, then it should be clear to you that some serious improvement is needed. If you have never done it, call up your company, or have someone else do so, and *pretend to be a customer*. If you find the experience unattractive, then imagine how it must seem to those you are trying to interest in your business. If you go into a store, and are ignored by staff, who feel they must discuss the details of their last date or favorite song between themselves, rather than what *you want to purchase*, would you rush back?

If you are routed through a maze of cryptic voice mail, left waiting on hold with that idiotic mechanical message “your call is important to us”, and then treated indifferently, you can soon appreciate how critically important good service is to a prospective customer. Often the entire efforts of advertising and product promotion are ***brutally killed in the first few moments of unpleasant contact***, and always linger long enough in the memory of the customer to be re-told to many others.

We once chased the HP voice mail “1-800” service in an enormous loop for 2 hours trying to get an answer to a simple question about our fax machine. We never got any help, and after 2 hours on the phone, wound up back at the first number we started with. Susan finally fixed the problem by calling the new President of HP, Carly Fiorina, because nothing else would work. To her considerable credit, Carly’s assistant arranged to fix the problem immediately, but was horrified to discover what life was really like for HP’s customers, a trip through voice-message hell.

It has become a popular business strategy to “hollow out” well recognized brands and companies, and trade on their ***past performance and previous product quality***, while allowing and in fact encouraging a steady deterioration in both areas. This is done to “maximize profits”, but usually leads in due course to a collapse of profits, and loss of customer support as quality soon degrades to the failure point. This kind of corporate bait & switch has taken place in everything from cookies and candy bars to ink jet printers, electronics and machine tools, and simply drives one more nail into the coffin of corporate credibility with customers. It permits and causes steady and relentless erosion in the general quality of life for everyone.

The hollowing out of a brand takes many forms, but it generally involves supplying less for the same or an even higher price, or the substitution of inferior content or quality under the same brand description. This activity is usually subtle and incremental, in the hope customers are not watching, but has serious repercussions once discovered, and often destroys the value of the

brand in the process. Credibility is not easily recaptured once lost in this way, and can affect remaining good quality items in a very negative way. U.S. Car makers certainly discovered this, but not in time to really help themselves.

One of the strangest trends in recent years is the increasing cruelty, tastelessness, greed and rudeness of commercials and advertising. This has come to be a part of our daily lives, and our humor, which is very unfortunate. We are becoming quick to mock, quick to ridicule, and find far too much pleasure in the discomfort of others, while focusing on our own satisfaction above all else. This set of bad attitudes is getting far too much airtime, and is seeping into our personalities more than we care to admit. If we do not curtail this, the basic fabric of society will become badly damaged, and our relationships with everyone will be transformed into the worst of patterns. We are sending out the worst possible messages at every opportunity, and still expecting wonderful results in return.

Always take your relationship seriously with customers, and give it the effort, care and attention it requires. After all, at the end of the day, there is really no one else for you to do business ***with.***

● 7

A good reputation is more valuable than money.
Publilius Syrus Maxim 108

Art is I, science is we.
Claude Bernard

Man is what he believes.
Anton Chekhov

Goodwill is the only asset
that competition cannot undersell or destroy.
Marshall Field



What is your greatest asset? What is your biggest liability?

Unless your company is literally a gold mine or something similar, your greatest asset is always your *employees* (which by the way, *includes* managers & owners!), and what they know and can do. Answers to this question are often quite varied in a seminar session, but I am mildly cheered to note that increasingly, many people are starting to recognize the extraordinary value of their employees. In *general*, where employees are held in high regard, it is in non-union situations, where they have not been forcibly divided from management, and not routinely placed in confrontational settings.

No doubt employees have a heightened sense of skepticism about how valuable they really are, since every company that publicly stresses how important they are also seems to swing the lay-off axe at the first sign of economic trouble. In the case of Enron's latest troubles and bankruptcy, this was made much worse by

unpaid severance, no notice, and some managers getting ludicrous bonuses while thousands of employees found themselves suddenly on the street and penniless. I think it is fair to say that a company needs to really believe in the importance of its employees, not just talk about it. ***As Deming correctly noted, slogans have no place in a company as a substitute for good policy.***

Repeatedly, it has been the adaptability and inventiveness of employees that has saved many companies from what looked like inevitable disaster. Science based companies like Intel, Motorola, TI, IBM, 3M, Microsoft, GE and Boeing in particular are highly dependent on the technical skills and experience of their staff to remain competitive, and create the products essential to their survival. Without the knowledge locked in the heads of their staff, they have ***nothing available to sell tomorrow.***

Product cycles are now often measured in months, with product lifespans on the same order. There is no sound reason for this, and it serves no real purpose, it has merely become part of the marketing psychology of today. The software industry was the initial driving force in this too-short cyclic change, and probably deserves some kind of award for creating the most irrelevant business activity and gratuitous change. Extraordinary skills and processes are needed to survive in that type of superheated industrial environment, and most of what is truly critical for success is in the minds of every company's employees.

Not so surprisingly, there are few businesses that ***can survive bad employees***, and their recruitment, training and intelligent supervision is not a simple task. Hiring is poorly understood to be one of the ***key processes*** in every company, and the ***best and most critical stage to attract and keep good staff***. This should have involvement and guidance from the most senior staff in the company, and be recognized as an ***essential tool*** to help shape and guide the future of the business.

Where employees are poorly regarded within a firm, it is almost always because of past confrontational labor issues (which can come from either side) or the personal attitudes of management. It usually occurs in an environment where unions or management have set the agenda for their needs to be satisfied ***ahead of both the customers and the company as a whole***. This is an unlikely recipe for long term success, and a poor working environment for all concerned. In this type of environment, it often becomes a contest to see who can be the ***most self-serving***, and the customer is left to find other vendors who can still remember why they are in business.

I often found that employees were far better at things than they ever realized. Frequently it was in an area where they had little previous experience, but was of great personal interest. When the company and its management provided the ***opportunity*** for this skill to be expressed, the results were often amazing, and employees discovered that their real career talent was far different than they imagined, and not at all what they were initially hired for. If a company is prepared to accept this change, everyone may benefit substantially.

As Deming pointed out, ***those who do the work usually know the job the best***, and employees often know how to do the job better, quicker, and with fewer defects than management, who have never actually done the work. When employees have an opportunity to influence their work in the right cooperative atmosphere, they are often of enormous benefit to the company in improving every aspect of the production process. The free exchange of information and insight between production, design, purchasing, finance and management is critical to keep a company competitive and in workable control of its problems. For good results, there has to be trust and confidence between everyone in a company. This is easy to say, but requires commitment and patience to achieve in practice. Slogans and programs ***will not do it***, only serious personal example is truly compelling instruction. They have to learn to ***depend on each other***, and learn to be ***dependable in return***. Time, and some

proven history is the basis for this process to succeed. In this environment all employees become a powerful agent for productivity and innovation, enjoy what they are doing far more, and achieve things they never anticipated, and which their competitors deeply regret. This is an outstanding and formidable combination.

On the flip side, ***one should also examine what is worst about the company***, and seen as its biggest liability. This may also turn out to be employees, especially if they are poorly motivated, indifferent, and have acclimated to a culture of low achievement and hostile management relations.

Just as employees can make the company, they can break it as well, and often are more inclined to do the latter in union environments and situations of high dissatisfaction or alienation. It can be very difficult to transform a group of employees from one category to the other, and is ***impossible*** without their own desire and trust.

Often, the worst employee group within a company is management, especially absentee management. They tend to be more self-absorbed, arrogant and indifferent as they become less responsible to employees, and show the same attitudes to customers. This is an incredibly dangerous situation, and usually rides on a crest of bad policy and entrenched corporate dogma that is of such low intellectual quality that it is amazing it survives at all.

Unfortunately, there is no certain demise of bad managers and policy, and changing that situation can be so difficult, it dwarfs the problems associated with employee attitudes. As a general statement, it is accurate to say that employee problems are most often a reflection of management attitudes, and neither can be

fixed in complete isolation from the other. Sometimes the real and only solution is simply the swift removal of all of those (regardless of position) who will not snap out of their self-absorbed posturing, to allow everybody else to get back to work.

In both government and business settings, there is a disturbing and misplaced sense of entitlement, rather than responsibility among many. Everyone is quick to seize on what they want, often to the extreme detriment of others, but few are prepared to offer any effort or time to achieve what is needed. In short, this is an institutionalized sense of greed and selfishness, and it is rapidly destroying both companies and public institutions. The simple and inescapable reality is that *there ain't no such thing as a free lunch* (TANSTAAFL, noted long ago by Robert A. Heinlein, and merely repeated here by me, hopefully to good effect). *Everybody has to work for the system to work.*

The greatest gift a company gives itself is good internal relations, and its greatest tragedy is when that harmony simply cannot be achieved.

● 8

Only the mediocre are always at their best.

Jean Giraudoux

It does not do to leave a live dragon out of your calculations,
if you live near him.

J.R.R. Tolkien

Nothing in life is to be feared.
It is only to be understood.

Marie Curie



Who are your competitors?

While it is essential to know your customers and your business, it is equally important to understand your competitors, and how they may impact your business, products and strategy. Competition is usually very healthy, as it keeps everyone from becoming complacent, and helps to drive innovation and service. Sometimes, competition may also be highly destructive to a specific market either in terms of product or area, if there is simply *not enough of a customer base* to support the number of players involved.

Competition may also become highly charged if there is significant imbalance between players, in terms of size, financial depth or community involvement. This pattern is playing out in many areas as large, powerful discount or warehouse operations move into smaller communities that were previously served by smaller local stores. The new stores can offer lower prices and wider selection, but frequently provide lower service levels, and remove the net income from the local community, to its resulting serious detriment.

Due to its speed, convenience and ease, the Internet e-commerce model takes this large-scale model a huge step farther. It often makes price the *only factor* in final selection for many consumers, and puts every local business in sudden competition with the entire planet, a situation very few are or could ever be prepared for. The global garage sale created by ebay and the universally accessible virtual storefronts from almost every possible manufacturer are formidable forces that cannot be underestimated in terms of importance.

Customers often respond to this improved access and selection by abandoning their existing local merchants, and taking their business to the new stores or web sites. This usually results in collapse of the old local structure, and some hollowing out of the community in terms of variety and service. If local merchants can provide better service or demonstrate better solutions to customer needs, their businesses continue to prosper, but usually at drastically reduced margins, which makes their survival and service levels both uncertain in the long term.

On the industrial level, success is often product driven, and may turn on the design of new or innovative products. You need to be aware of the players in your market segment, as well as those in other areas whose technology may be easily ported into your market. This means that substantial effort is required on an ongoing basis to remain aware of developments that may affect you, and must include trade show attendance, trade journal reviews, on line information and regular examination of competing products.

It is worth noting that competitors are often the largest source of *upset events* that may impact your business, and your failure to stay current with the activities of your competitors may be fatal to your business. You may be surprised by sudden changes in fee structures, new technology or products, changing product prices, unexpected marketing strategies and free or special offers from competitors that seriously damage your competitive position.

If you cannot name at least five competitors, and describe their major products, then you are clearly unprepared to meet them in the marketplace. You should include a regular review of your competitors, as well as customer comments in your product and service meetings with your staff, to be sure they are aware of the potential hazards and difficulties they may face with customers.

One of the very best lessons you can learn from your competitors is *what they are doing right* for their customers that *you are not doing*. Often their viewpoint will be completely new to you, and may be very informative with regard to shortcomings in your own strategy or product lines. You may also find that your process or technique is not really that efficient or cost-competitive, and needs to be redesigned to remain attractive to customers. Your competitors can be highly instructive no matter whether they are good or bad in the eyes of customers.

Just as customers provide the *impetus* for new products and services, competitors provide the *challenge* that makes the process exciting and urgent to everyone involved, and drive both creativity and innovation. It is hard to continue to do well in a specific industry or marketplace without a good competitor to continually motivate you to extraordinary effort, a situation that is not always correctly appreciated.

● 9

The trouble with doing something right the first time
is that nobody appreciates
how difficult it was.

Walt West

Fraud and falsehood dread examination.
Truth invites it.

Thomas Cooper



Something from Nothing

When a company first starts, many seemingly small things occur that have considerable importance as the future unwinds. The tone of the company is set very early on, as well as decisions about who will hold key positions, and what factors will guide every major decision. This all occurs through the staffing of initial positions, the dispersal of authority, and the creation of the company's financial structure.

Often, a company *is formed in considerable imbalance*, usually through mistaken emphasis put on initial money or funding. I have seen many small companies formed in this position, with one player demanding and getting disproportionate control because of their monetary contribution. *This imbalance invariably poisons the entire corporate climate, and often sets the stage for later failure*, sometimes damaging many people in the process, and further discrediting business in general. It is very important to avoid this distorted structure, regardless of the desire for funding.

Forming a company of any size is difficult, and while the decision to make it happen may take place on the spur of the moment, ***the division of work and responsibility is critical, and needs to be well considered.*** Everyone that will be a founding shareholder needs to be prepared ***to subordinate their personal compensation to the success of the company,*** and has to have a degree of passion for the work as well as a desire for commerce.

There is no requirement for companies to start fully formed, in lavish offices, complete with embossed logo stationary and company cars. The real requirement is to have identified something customers need, and to have formulated a workable plan to satisfy that need. Very credible and now large corporations have started in garages and basements (including my own), and evolved with their own internally generated funding over time.

Misdirection is very dangerous at the early stage of a company, and loss of focus can be fatal. Real energy has to be expended to find the best way to attract, satisfy and keep customers. It should not be wasted on debate over company colors and leasing a massive manufacturing space before a viable product is even developed. ***There is tremendous temptation to play with the trappings of being in business, often before any business even exists, and this is a problem that can scuttle many plans, and come at any stage of a company's life cycle.***

The personnel that are the core and heart of a company need to have trust in each other, and know that the division of work, responsibility and compensation has an inarguable appropriateness to it right from the beginning. If there is imbalance early on, it will only get worse as workload and problems develop, and may break up the company over issues of minor significance. Everyone does not have to be long time friends, but they should not be enemies, and there must be mutual respect and competence from the beginning.

Often, people who start businesses have only ever had experience as employees, and their conceptions about how a company is run or structured may be woefully inadequate.

Patience and consideration for others are the first things to consider, along with the awareness that everybody's early decisions and choices may frankly be terrible. You can get over these initial problems, but not if denial of responsibility and blaming others is the dominant administrative attitude. Discuss everything, but not in an adversarial way, and take responsibility for your own mistakes quickly and ideally only once.

People are not born knowing how to run companies, they learn it by doing it and watching others who are good at it do it.

There's relatively little magic, but a lot of thought and recognition of skill is required. Virtually everyone I have ever known that was really good at their business shared many behavioral similarities, even though they were completely different people in every way. They were well informed, knew their customers, enjoyed what they did, were insightful into what motivates people, and they were driven and responsible.

You can shamelessly pick up good habits and ideas from everybody you come in contact with.

If you are really on the lookout for people that are good at what they do, you will start seeing worthwhile models everywhere, along with some horrifying clear-cut bad examples. ***I find studying both the good and bad worthwhile, as I need to be reminded regularly of what not to do as well as what needs to be done.*** Bad habits can easily sneak up on you if you are not thinking about them, as well as the significant harm they cause.

Think about your customers, and listen to them talk about their problems and desires. They can't solve your problems or create your products, but it is astonishing what they can do for you. They will tell you what they need, and then it's up to you to create something that satisfies those needs. They will tell you when you make mistakes, and that is critically important, as those clues can help you avoid disaster and many kinds of bad

judgement. They can also tell you when you are doing the right thing (and they will tell others), and that reinforcement is incredibly valuable. ***Having a customer tell you just how great your products and services really are can be galvanizing for everyone both within and outside the company, and eliminates many doubts and fears. You need to share and celebrate those moments, as they are very important to everyone within the company.***

Early businesses need to be fiscally conservative, and put their limited money where it can do the most good. If your products become successful, you will quickly outstrip your credit, and you need to have good relationships with your banker and suppliers to get past that hurdle. You will also have to commit your own financial security to the company on some level to create enough working capital to begin the firm and to get to the stage where revenue is significant. External financing via either public or private share investment is a major step for a company, and much easier to obtain if you have some proven capability and customer commitment to offer. Do not trade money for your future, you simply cannot get it back.

From my own perspective, I have to say that ***good quality outside financial and legal advice has always proven to be worthwhile.*** Finding a good accountant and lawyer is not easy, but has always saved us money, and helped avoid problems that could have been fatal. You won't know everything, so it's very helpful to have professional help to fill in any gaps. Find good help, and ***then listen to them,*** that's often the hardest part of all.

Enjoy being in business, find the pleasure in working with your staff and customers, and savor the chance to do something that is both worthwhile and needed. This is your chance to make the world a significantly better place, so don't let it go to waste.

● 10

It wasn't raining when Noah built the Ark.

Howard Ruff

Regulation is the substitution of error for chance.

Fred Emery

Faced with the choice between changing one's mind,
and proving that there is no need to do so,
almost everybody gets busy on the proof.

John Kenneth Galbraith

The most exciting phrase to hear in science,
the one that heralds new discoveries,
is not 'Eureka!' but 'That's funny...'

Isaac Asimov

Chance is always powerful.
Let your hook always be cast;
in the pool where you least expect it,
there will be fish.

Ovid



Upset events

In the natural planning of a company, people consider growth, depreciation, competition, staffing, taxes, zoning, and a host of other useful variables. If the sophistication of the business is high, they will also use spreadsheet models for all of these events, and look for optimal solutions in each case, and the best timing for any intended changes. The only serious drawback to these models is that they are intrinsically reflections of *the known*, rather than *the unknown*, and thus unlikely to be successful over the long term, since to put it very simply, *the future is filled with unknowns*.

There is nothing wrong with this type of forecasting or modeling in an abstract sense, and many valuable small-scale decisions can be achieved in this way. But to base serious business decisions on this type of model *alone*, and to stick with it in the face of changing events, is almost always fatal in a business environment. Why? The unavoidable presence of *Upset Events*.

Upset Events are those not easily foreseen or forecast by present circumstances. They have impact because they cause systemic changes, often serious ones, that make *irrelevant* the detailed spreadsheet forecasts and their resulting decisions. They do not have to be large or significant events in themselves, and a recounting of them often seems like a laundry list of the trivial. But consider this: a small change in seasonal rainfall can be fatal for a farmer, or disastrous to someone living by an easily flooded river. A small change in allowable chemicals can send shockwaves through an industry scrambling to find a substitute, and a fire in a single chemical factory can literally terrorize the entire semiconductor industry for months. Little events can produce amazingly big results. All of these issues are quite invisible and undetectable in detailed models and spreadsheets.

To illustrate the true importance of random or upset events, and their power over even the best possible planning, it is useful to look at a few recent events, which illustrate the forces at work in a dramatic way. The first is the unusual weather in June and July of 1993 that resulted in massive flooding of the Mississippi and Missouri rivers, and the second is the seemingly unimportant loss of a minor Sumitomo chemical plant due to a fire and explosion in Japan on July 4th, 1993.

- **Natural upset events are commonplace**

Despite decades of flood control dike work along the Mississippi river, the random alignment of weather patterns in June and July resulted in almost unrelenting rain for over eight weeks throughout the drainage basin of the Mississippi and Missouri

rivers. This rain saturated the ground, then filled the rivers to unprecedented levels. Initially, it was an inconvenience, then it became more alarming. Fields were flooded, and crops lost, bridges cut off and essential services such as water and power were lost.

On the same week that CNN broadcasts featured citizens of Sarajevo in Bosnia-Herzegovina lining up to get water from the single remaining pump in the city, we were also treated to an almost identical view of citizens in Indianapolis and other US cities. They too were lining up to get water from trucks when their entire municipal water system failed due to the flood damage and septic contamination.

The final flooded crop area was estimated at over 10 million acres, with 48 dead, and at least US\$10 Billion dollars in damage. And of course, this came not long after the sweeping damage in 1992 to Florida done by hurricane Andrew and to Hawaii by hurricane Iniki. Subtle reminders that not everything is really ***under control*** in the real world.

The most important aspect of this flood situation was that it ***repeated itself in 1995***, to the surprise, shock and despair of many riverside communities, and once again reinforced the tremendous volatility of many developed areas, and the irrepressible and unstoppable impact of upset events.

As a final reminder of the fragility of that area, Hurricane Katrina (a category 5 hurricane, the largest defined) hit Louisiana, and the gulf coast as far as Alabama between August and September of 2005, almost destroying cities like Gulfport, and New Orleans, and displacing a staggering 1,000,000+ people. In a heartbeat, the USA was in a humanitarian disaster that was its largest in history, and enormous in area. To make matters worse, since the Gulf region is a major source of US oil and gas, fuel prices went insane, with the largest increase in history, An incredible US\$0.46 increase per gallon of gas in one single week.

Hurricane Katrina also illustrated just how difficult recovery really is for a city or area after serious disruption. When clean water fails, power fails, transportation and communication fails, people in an urban setting are truly helpless. We can only watch their misery on CNN, and struggle to make some small impact, while noting the NASA gulf water heat map that shows the increasing likelihood of many more powerful hurricanes to come.

Katrina also illustrated something that had not really been clear until it hit a major center like New Orleans, and leveled a wide part of adjoining gulf coast shorelines in other states. The unhappy reality is that all things don't get fixed. There is just not enough will or money to restore what was there. Even by 2010 only a small amount of meaningful reconstruction has taken place, despite billions of dollars spent.

- **Man-made upset events are always with us**

The 1993 explosion in the Sumitomo chemical plant in Japan is important because its impact was entirely man-made, but no less sweeping in effect than a natural disaster. As it turns out, this particular plant made a component used in the manufacture of a simple epoxy resin, known as ECN or Epoxy Cresol Novolac. Unfortunately, it is a resin used to encapsulate integrated circuits, and due to a bizarre set of market conditions, the Sumitomo plant supplied at least 50% (some estimated over 60%) of the world consumption of this particular packaging resin.

Within 48 hours of the plant explosion, the impact of this disruption was already felt in Japan among memory IC manufacturers, and within a week, it was major news worldwide. The upshot of this fire was that half of the world's integrated circuits couldn't be built until another resin supplier was brought on line, or the original plant was operational again. Shortly after the explosion, major manufacturers announced through their distributors that they would no longer accept new orders for ICs

for the rest of the year, including Texas Instruments, SGS-Thompson and National Semiconductor.

Within one month of the plant explosion, computer manufacturers saw their component prices rise 50% on many key parts such as DRAMS, and many others found they simply couldn't get parts at any price. The disruption of this event is hard to calculate accurately, as the number of industries affected was so enormous, and the dislocation so great.

Almost every industry using integrated circuits and electronics was affected for months, everywhere in the world to some degree. A year later in mid-1994, the situation finally stabilized, but it led to bizarre changes in deliverables from virtually all semiconductor vendors, in which only high cost parts were truly available, and low cost parts simply weren't deemed important enough to make. In 1995, this attitude became deeply entrenched, and virtually all types of electronic components went on some type of allocation program, with all the emphasis given at every vendor to the highest margin parts. It is somewhat unfortunate that so many low cost parts are used in so many designs.

As a final irony to this pattern, and total confirmation of the critical importance of upset events, the stunning reversal of the internet and computer industry from 2000 on created huge surpluses of these parts, especially DRAMs, and caused values to drop below the price of production, devastating many companies.

- **More natural upset events, and the relentless impact of disease**

Early in 1994, southern California was hit by an earthquake, eventually called the Northridge quake. It was clearly not the "Big One", but managed to show several million people in Los Angeles and the San Fernando Valley just how irritating and

inconvenient life can become without some common amenities like working freeways, and in some smaller localized areas, gas, water or houses. The Northridge earthquake did \$20 Billion dollars worth of damage (for perspective, that's 2/3 of Canada's annual Budget deficit in 1995) and killed 57 people.

Despite endless planning and discussion about such an event, the reality proved to be far more awkward to handle after the quake than originally imagined. It was only the very early morning hour of the quake that prevented tremendous loss of life, as most people were not out on the damaged freeways. For the insurance industry, already rocked by previous hurricanes and floods, this was a most unwelcome event.

To add insult to injury, drought ridden California was also rocked by massive rainfall and flooding in a surprise weather change during the first two weeks of 1995. In less than 10 days, **7 years worth of average rainfall** hit areas in both northern & southern California, flooding many crop areas, doing over \$300 Million worth of damage, and killing 11. The outcome of this minor weather anomaly was higher vegetable and fruit prices all across the US, as a result.

These events are interesting examples of the force of large scale upset events, but pale in comparison to an issue like AIDS, which poses as one possible outcome the extinction of human life, and which remains singularly untreatable. It is likely that AIDS itself is **not even the real threat**, but that an inevitable mutation of this virus will surface soon, encouraged by intensive but ineffectual drug treatment, and which will be far more fatal. Just as many other infectious bacteria are now becoming totally drug resistant, this disease pattern is a true and ominous danger to continued human existence.

In Africa and South East Asia, AIDS infections have risen to 10-30% in many areas of the general population. Countries like Thailand and South Africa are in social and economic turmoil, thanks to the skyrocketing infection rates. Even the postulated

1% North American HIV/AIDS infection rate means ***almost 3 million cases right now***. Imagine a world in which not only AIDS, but new strains of Marburg or Ebola filovirus are loose. They have 50-90% fatality rates, and go from infection to death in less than two weeks in a most unpleasant and devastating fashion.

In 2002, the UN released its report on world AIDS/HIV infection, and sounded an alarm about the relentless increases in infection. It is now the most fatal epidemic in human history, and is decimating sub-Saharan Africa, where astonishing rates as high as 39% of the population are now occurring. Most serious as a new shift, are the 1 million estimated Chinese infections, which are growing much faster than elsewhere. The UN has also noted that up to 50% of infections are now heterosexually transmitted, which is opening a floodgate of new victims.

Even if AIDS is somehow magically cured in short order, the strain on medical services world-wide is already traumatic, and threatens to completely destroy the delivery system of health care now in place.

Not every upset event is of such scale, and often the impact is very closely focused, affecting only a very distinct group or industry, or even a single individual or company. Ongoing examples of this action are changes to CFC regulations, which affect the refrigeration and electronics industries, and how things are put into the ubiquitous aerosol cans. Changes in the permitted use of lead caused a shockwave in the car industry as well as the oil and gas producers, leading to the adoption of unleaded fuels, and eventually the complete phasing out of leaded fuels. Lead content changes will also affect the electronics industry (since it is used in solder), and may come to have serious impact in the future.

- **The impact of procedures and policies**

Changes to SEC regulations have affected brokerage houses and how stocks are traded, and it is certain that more destabilizing changes are yet to come for banking, which will affect access to money, credit and the security of deposits. The advent of electronic cash via on-line Internet transactions is another looming upheaval in modern finance. It has the potential to actually alter the reality of money.

Electronic voting, and its very erratic, untrackable and problem-prone performance to date, has opened the door to massive vote fraud and manipulation on an unprecedented scale. As the US presidential election in 2000 illustrated, national elections and the quirky nature of the electoral college can pivot on tiny localized voting changes, a situation tailor made for e-vote tampering. I believe that this is the major threat to democracy in the future, and has to be firmly resisted. It is a fatal upset event slowly creeping into our culture, and we won't even notice when we become disenfranchised with our current attention spans. Untraceable voting machine fraud has been irrefutably demonstrated at Princeton for any one interested in seeing it here: <http://itpolicy.princeton.edu/voting/>

Other recent upset events in industry that you may not have thought about are the deaths of Ray Kroc, head of McDonalds, Walt Disney of the Disney entertainment empire, Sam Walton, head of Wal-Mart, and Dave Thomas of Wendy's. How will their deaths affect the industries they shaped for so long, and what policy changes are in those corporate futures as a result? I already see some significant and negative differences in a few of these companies in terms of quality, and especially in advertising and standards, and how they do business. Today, these companies are staunch defenders of their brands, but possibly no longer vehicles for the genuine vision of their founders.

International events include the sudden devaluation of the Mexican Peso early in 1995, triggered by concern over internal political events, and the unexpected attack on Chechnya by Russia, rather than permit independence. All these events trigger others, and then they cascade into a wide range of upset events at every level.

Just to stimulate your thinking, here is a list (by no means exhaustive) of events that fall into the upset category on a regular basis. Keep in mind that *not all upset events are negative*, and many have *very favorable impact* on companies and individuals. These can be new discoveries or inventions, marriages, alliances, new companies formed or unexpected business. It is also usually true that what is a discomfort for one group is often a boon to others. You may want to start considering some of these events in your future corporate planning:

Business Upset Events:

- New Competitors
- New Technology (which you don't own)
- New Technology (which you do own)
- Improved Processes
- Change of Ownership
- Change of Management
- Cost Changes
- Currency Fluctuations
- Strikes
- Layoffs or Lockouts
- Zoning or Incorporation Changes
- New Laws or Regulations
- Materials Shortages
- Materials Unavailable or Unusable
- Law Suits or Legal Actions
- Tax Changes
- Tax Audits
- Adverse Publicity
- Desirable Publicity
- Corporate Alliances
- Staff Changes
- Moving
- Lease Expiry
- Contracts
- Unexpected Business

Customer Problems
Shareholder Reactions
Defects
Business Failures
New Businesses
Oil Spills
Radiation Leakage
Water Pollution
Area Code Re-assignment

Natural Upset Events:

Rainfall (higher or lower than normal)
Earthquakes
Floods
Tidal Waves
Depletion of Fish Stocks
Species Extinction
Temperature Changes (hot or cold spells)
Insect Infestations
Parasites
Viral or Bacterial Infections
Temperature Inversions
Ozone Depletion
Altered Ocean Currents
Global Warming

Social Upset Events:

Elections
Revolutions
Coups
Riots
Assassinations
Arrests
Demonstrations
Fashion Shifts
Scandal
Moving
Marriages
Births
Deaths
Aging
Divorces
Resignations
Appointments

Some people are very successful in business because of the quality of their hunches or ability to see the future turn events or products will take. This is an extraordinary skill that only a few people or firms develop, which is the ability to see the **future impact of small current events**, and the evolution of patterns in society. These are hard situations to analyze, because questions and their format often **drive** answers, and the tricky part is to know just what to **ask, and how to ask it** in the first place.

- **Pivotal Upset Events in Action**

A few practical examples of the true significance of upset events will illustrate the bizarre impacts, and twists and turns of the industries involved. We need to understand the enormous impact of historic changes, such as **movable type** and the **printing press** that revolutionized the propagation of thoughts and ideas through Europe. They were followed by equally powerful changes in the way thoughts are handled and transmitted, including watershed events like the telegraph, telephone, radio, xerographic copier and computer.

Every one of these shook the industry of the day profoundly, and provided both opportunity and disaster for the players involved. In every case, old science was deep in denial, and the new science was thought to be merely a novelty. At one point, it was estimated that the total worldwide market for computers was thought to be only 100 units. History shows the penalty for that little lack of insight.

Today we are involved in an equally dramatic industrial change brought about by a simple invention many people had written off and abandoned as both impractical and irrelevant: the lowly **fax machine**. Used for years by only a few law enforcement agencies and wire services, this was seen to be a somewhat esoteric and expensive technology of little practical application except the

slow transmission of pictures. What changed this market forever, were some unrelated developments in modem technology and thermal printing.

Modems were initially used to send low speed digital data over phone lines, usually at unimpressive rates of 10-30 characters, or 110-300 baud, per second. Improved technology made it possible to increase this more than a hundred fold to 1,200, 9,600, 14,400, 28,800 and now even 56,000 baud over a regular phone connection, and simultaneously made high speed image or text transfer by phone a simple task.

To close the technology loop, an equally simple way of providing a printed image was needed, and was filled by an obscure technology used in some calculators, called thermal printing, that used a minute series of heating elements to literally burn an image into the surface of specially treated paper. This unlikely mating of ideas produced the first low-cost fax machines that could really send a page in minutes to anywhere an ordinary phone could go.

It was driven by the export marketing of Japan, to keep in touch with their related businesses and process orders, and was slowly adopted by North American and European businesses. In a few years, it had truly revolutionized the way people did business. Drawings could be on the desk of a supplier in seconds, and he could reply the same way. Purchase orders, inquiries, product information, quotes and a host of other critical business communication that required mail, courier service or personal visits could now be done *quickly, cheaply and immediately* by fax.

What is the outcome of this simple device? Export and import marketing by companies all over the world is now active business. People are no longer penalized by offset time zones or distance, and communicate quickly and effectively. It also, as an aside, sent a *crushing blow* to the postal services of the world. Mail use dropped dramatically, and mail literally became the

carrier for the unimportant, once courier and package delivery services stripped off much of the lucrative express and parcel traffic.

FAX also *devastated* the former text traffic services, TELEX and TWX, and *virtually eliminated them worldwide*. Companies that backed fax technology (almost all Japanese) prospered in a market they truly created from nothing. All of those who thought it was *irrelevant* were proved wrong in the most painful possible way. And it all happened so quickly it was literally breathtaking.

With some fax transmissions now serving as legal documents, even courier services are now being impacted by the ease of use and speed of fax technology. This is a subtle change that has settled in over a few short years, so we don't really appreciate it's true impact, but a quick look at your own business a few years ago will show how profound this change has really become. Small device, big impact. An upset event of the first order.

However, it doesn't do to be complacent on that ride to the top.

Fax technology itself has almost been eliminated by another communication system, which is *e-mail*, propagated via Internet connections. With this, not only documents but actual programs, even speech and video can now be sent from one desk to another, clear around the world, in only seconds, often for very low or near zero cost. Fresh battles are coming on this front for certain, as the volume of email had skyrocketed in 2005 to *over 100,000,000 messages a day, and is increasing rapidly*. Since e-mail requires no consumable supplies, reaches everywhere and is so much more flexible, there is little doubt it will dominate both business and personal communication. What an unexpected surprise for the fax industry, which was just getting comfortable in its role as a major player and conquering technological hero.

Another simple technology-based upset event is the digital audio Compact Disk (CD). It virtually eliminated vinyl records and tape as the primary sales method for music in only a few years,

something many industry people found astonishing and frankly unimaginable. It offered the customer reasonably high quality sound at low cost, with random access to tracks and ease of handling that recorded tape couldn't hope to achieve. Beneficiaries: Sony & Philips, and everyone making what had been lab curiosities, semiconductor *lasers* for CD players. Losers: The cassette tape and vinyl record business and everyone making phono cartridges, tape heads and turntables. Just the luck of the draw.

An unexpected fall-out from audio CD technology, the digital data CD, has also threatened a long cherished icon of modern civilization: the encyclopedia. With the advent of not one, but *many* CD based encyclopedias with everything from video clips and sound to animated explanations of the heart pumping blood, they are literally eliminating the demand for old printed versions. The search capabilities alone, and the cross-referenced hyper-text links to related topics make them a far more valuable research tool than older printed versions. Their ease of creation, low cost, and annual updates seem to indicate that they will be a formidable challenge to all types of large scale reference texts in the future. As storage capacity increases, they will soon be able to hold almost any reference on line, and already do so for countless car repair manuals, data books, and image files. Recordable DVD technology, with its increased storage over conventional CD technology, will usher in more unexpected changes in the way we move and store all kinds of information, but it's already under threat by Blu-Ray and other higher density formats.

In 1999, the whole music industry was shaken to the core by an obscure multimedia software compression technology called MP3 (Mpeg 3 compression). These compressed music files are small enough (1-5Mb) to send quickly over the Internet as an email attachment, and sound astonishingly good. The fragility of copyright protection and conventional music distribution is now being rocked by a new technology and distribution method that was truly an upset event, triggered by some freeware player software and a mathematical method for compressing audio

soundtracks. It was just some speculative science at the beginning, but wound up shaking billion dollar industries. The power of math, expressed in an unanticipated way.

The music industry fought against every type of digital download technology as a sales tool and in doing so, allowed their entire industry to be undermined by a tidal wave of free peer-to-peer music file sharing. It wasn't until Apple Computer provided the iTunes sales vehicle to go with its iPod music player, and finally commercialized this concept that the industry re-captured any lost sales revenue. The iTunes store recently logged its one billionth (paid) download in 2009.

The advent of inexpensive electronic calculators in the early 70's extinguished many well known companies such as Keuffel and Esser (K+E), POST and Pickett. They all made slide rules (plus other items, such as mechanical drafting supplies, also soon to be vaporized by the upcoming CAD software revolution), and demand for their product lines was virtually eliminated by the mid-70's. The calculator industry also drove the microprocessor revolution (Intel's early 4-bit microprocessors were conceived as building blocks for this type of system), sparked and sustained LCD display development, and pushed LED efficiencies. An amazing combination of eventual circumstances from a single root cause.

It is very helpful to remember that in all business (or any other human activity for that matter) there is always some element of uncertainty, a kind of Social Heisenberg Uncertainty Principle. For that reason, a company, just as with individuals, needs to retain some *flexibility to adapt to changes*, and must develop some *alternate strategies* and products for the "just in case" scenarios. It is interesting to note that most North American corporate R&D activity usually is *product driven*, and seldom has *strategy* as its real focus, except as vague catch phrases. A division of time *between these two areas* can be very valuable, as the future remains unwritten, and it is often hard to predict just what may be useful at some unknown juncture. After all, POST

and K+E were really in the calculating and graphics business, they just thought it meant only slide rules and drafting tools.

It helps to remember that many budgets and forecasts come from casual estimates, low accuracy polling, guesses and often illogical factors based on historical precedent that may be irrelevant tomorrow. These numbers have no mystical significance, and should never drive actions, only help to *evaluate* them. For budget figures to have corporate planning value, they must be treated with care, and take into account possible future trends and impacts wherever possible. They may also have to be expressed as ranges of figures, rather than specific numbers. Flexibility, responsiveness, and the commitment to quality and service are much more profound agents for corporate survival than inflexible order, policy and dogma.

An interesting event related to both upset events and spreadsheet issues was the fascinating mistake made by the Fidelity/Magellan fund, reported by CNN. An almost US\$1.3 Billion *loss* was converted to a *capital gain* by a spreadsheet “sign” error, resulting in a US\$2.5+ Billion change in their reported financial position. This event really speaks for itself. On seemingly very small things do very big ones turn.

As I was finishing release 3.1 of this book, both Kobe and Osaka in Japan were hit by strong earthquakes and an equally strong and lengthy series of aftershocks. The loss of life was truly *appalling*; more than 5,000 people killed, with over 20,000 more injured, and an unbelievable *310,00 homeless*. Estimates of total damage range from *US\$40 to US\$140 Billion*, and the entire world was stunned to see *how poorly* Japan, with all its extensive earthquake preparedness and earthquake construction, was able to cope and respond to a real quake in modern times. The major port of Kobe was devastated with over 95% of ship berths damaged, seriously affecting Japanese commerce for the near term, and impacting such diverse trade issues as the availability of LCD computer displays, steel and relays.

The most un-obvious upset event from the quake was a dizzying drop in the value of the US Dollar, to its lowest exchange against the Japanese Yen *in post-world war two history*, to around 82 yen, or a drop of 20% in *one fiscal quarter*. This was caused by the sudden demand for money *within Japan* to finance the rebuilding and reconstruction in the Kobe area. Japanese demand for U.S. bonds and dollars slowly evaporated, subtly aided on the psychological level by numerous abrasive trade frictions and US ultimatums, and deteriorating economic performance in Japan. As the sell-off of US dollars continued, the dollar also lost ground against the German Mark, losing about 13% in the same period. This has had a ripple effect on other currencies, usually pegged to the US Dollar, such as the Canadian Dollar and Mexican Peso. The real impact on the Peso has been *over a 50% loss in value* relative to the Yen in just over a single quarter.

The US Dollar continued to stay low in relation to the Japanese Yen, despite considerable behind the scenes financial maneuvering during 1995. This was thought in some circles to be an advantage, as it would make Japanese imports seem less attractive, and boost internal US sales of goods, and so was left to float. It was unanticipated by many US financial experts that Japanese companies would absorb much of this currency change by further dropping their profits to retain their market share. The result was *record US deficits in foreign exchange*, reaching an astonishing US\$30 Billion dollars/month by the end of 2000, and extensive damage to corporate Japan at every level, as their profits dropped dangerously. This would in turn expose the revelations of concealed billion dollar losses by the US branch of Daiwa bank, caused by poor speculative investments, and the generally *bad asset situations and loan losses* of both Japanese and Chinese banks, which still remain critical.

Exactly how large is the US national debt? Well, visit this page by the US treasury department:

<http://www.treasurydirect.gov/govt/reports/pd/mspd/mspd.htm>

As of August, 2005, it stood at **US\$7.9 Trillion, and in April of 2007 it was US\$8.69 Trillion, current figures for February**

2009 are over US\$10.87 Trillion. We clearly no longer live in a world of budget surpluses. How large is the US trade deficit? See this page from the US Census Bureau:

<http://www.census.gov/foreign-trade/www/>

In February of 2009, it was adjusted to **US\$39.9 Billion/Month**, with a total of **US\$677 Billion**.

The Yen/US Dollar balance would not return to the 100/1 ratio until September of 1995, but this arrived only after extensive economic damage in both countries, and the *worst US monthly trade deficit in recorded history (at that time)*. The lessons for everyone were powerful from this event, and its fallout, but as always, the changes in practice were minimal.

When I was working on release 3.4, both central Canada and the northern part of the United States were devastated by widespread floods triggered by the rising Red River. It would eventually turn the lower half of Manitoba into a giant flood plain, and almost make the capital, Winnipeg, into an island. Damage was in the billions of dollars, and hundreds of thousands of people were displaced in both countries.

In early 2010, first Haiti, then Chile, were rocked by serious earthquakes, eventually making an estimated **2 million people homeless** as a result. The eventual cost of so much disruption is very hard to even calculate.

- **The incredibly widespread impact of Energy**

While working on release 4.1, the state of California found itself in the astonishing position of bankrupted power utilities, and rotating power black outs, a situation that read like a news report from an impoverished third world nation. Their situation was merely an expression of many long standing bad policies that suddenly combined to trigger a significant upset event.

Human civilization has ready access *to only a limited amount of energy on Earth in readily usable form* for industry and to provide basic services to people. Making the best use of that available power is a critically important step in world development. Thoughtless use can have serious implications at every level of our society. Coal remains the main source (>51% in 2002) of fuel for generation of electricity in the USA, and its use has significant waste byproducts in terms of atmospheric pollution, and eventual acid rain. Petroleum remains the main source of vehicular fuel worldwide in various refined states from diesel to gasoline, and related fossil fuels like natural gas are widely used for heating and recently, in electrical power generation where available supplies permit.

The high use of fossil fuels is much like the rapid depletion of ancient aquifer water, *it has a definite point of exhaustion*, and the implications of that are traumatic for industry and every person individually. Costs for all fossil fuels and its derivative electricity increased dramatically in 2000 through 2004. This has also highlighted the fragility of supply from major sources in the middle east as tensions increase between Israel and Palestinians as well as with surrounding neighbors like Iraq, Iran and Saudi Arabia. Even in Canada, where the country has been a net exporter of fuels, especially natural gas, the internal economic disruption caused by the increasing upward shift in world prices has been severe. Truck drivers in Europe, Canada and the USA have held massive public demonstrations protesting the high price

of gasoline, which has almost destroyed their industry, and bankrupted many private truck haulers.

Consumers finally punished US and Canadian automakers for their dismal fuel efficiency behavior in 2006-2007, and fled to fuel efficient car makers like Toyota, Honda, Hyundai and Kia. The huge fuel prices simply were not acceptable to consumers any longer, who deserted the Big-3 US automakers by the hundreds of thousands. Their shift in allegiance devastated Ford, GM and Chrysler. In a special touch of irony, these “import” makers provided cars made in the USA at their local plants, proving that it was possible all along to make cost effective, fuel efficient cars at home with US labor, something the Big 3 seemed to feel was simply impossible.

No useful remedy exists for the declining fuel/rising cost situation, as the stark fact is that supplies of fossil fuel material are limited, extraction costs are steadily increasing, and environmental risks involved in moving it from ever more remote locations to markets are very significant. Each passing year will bring this into clearer focus, and any serious flow disruption, such as a war, will certainly trigger economic recession and hardship that is significant. Only reduced or more efficient consumption and recycling of existing stocks are possible short term solutions, and they will only *delay* the eventual exhaustion of these sources, which is clearly within a horizon of 25-30 years, and possibly much shorter if demand continues to increase, especially in China and India.

Already, the Cantarell field in Mexico and Khurais fields in Saudi Arabia are reported to be in decline, indicating that we are already moving past the phase called “Peak Oil”, and that production can only be expected to decline in the future from all known reserves. US peak production was thought to have already occurred sometime in 1970’s. The site “The Oil Drum”, <http://traillfire.com/pages/form.php?aid=check&bubble=51136> tracks this global supply trend, and seems to fix the turning point at approximately March of 2006.

We have all been aware of the general situation, especially the environmental implications of burning fossil fuel for decades. Unfortunately, our reaction (at least in North America) has been to build even more fuel *inefficient* and polluting SUV's, dramatically *increase* electrical demand, and generally *insist on impossible situations* like steadily increasing amounts of low cost energy without building new generation capacity. This illogical and dangerously ignorant posture exploded in California in January of 2001, when the state was forced into rotating power black-outs thanks to a badly conceived electrical power "deregulation" scheme in which every possible supply-and-demand mistake was made, while blindly ignoring all downstream implications. Consumer prices were fixed, but supply costs were free to float, and long-term deals were prohibited. A totally unrealistic and idiotic plan from every possible perspective, so of course it was put into action, as if politics can somehow overcome physics.

The real significance of the situation that resulted from the energy shortage in California was that it highlighted the critical shortage of electrical power already existing *in all the adjacent states*, NOT JUST California. The serious economic results of a simultaneous companion natural gas shortage and attendant overall energy price escalation were finally visible. Sadly, even energy rich Alberta in Canada instituted a similar deregulation program, and now is in the grip of both shortages and the highest costs in history. Clearly, there is a message hiding here regarding foolish plans.

It is fairly obvious that *some re-tooling in terms of how we use and generate power is long overdue*, and the amount of buffer time to do this seems to be shrinking quickly. Since completely changing the power infrastructure is not a quick or easy task, first efforts may be better spent on altering consumption, and testing the waters for distributed low level generation using techniques like solar, micro-hydro or wind.

An excellent example of unnecessary profligate consumption is on the desktop of almost every office and most homes, the personal computer. Because both monitors and computers are made with switching power supplies that ***lack power factor correction***, they appear to the grid as much higher peak loads than they really are, reducing the actual amount of consumable energy available. This terrible design decision wastes millions of megawatts annually, and is ***already prohibited*** in Europe, where power factor correction is now mandatory at consumption levels over 65W. In addition, virtually all but large server computers can be implemented with far less power consumption, and can make good use of well established laptop technology to consume about 1/5 or less of their current load demands. Most computer designs can be implemented with an energy budget of only 30-40W, a far cry from current consumption of 200-350W used by current computers and monitors.

Many users also leave their computers on continuously, an especially wasteful and idiotic practice that essentially throws away 2/3 of the useful life of any machine, and consumes an astonishing amount of power, even in “energy saver mode” except in the most advanced designs. The explosion in use and the careless operation of these systems has pushed up electrical demand to record levels, while new generation capacity has remained stagnant, or even dropped. Interestingly, a lower power system could be easily solar powered in most areas, and reduce system grid demand to zero. This is very easy to do and has a modest one time cost.

Meanwhile, early in April of 2001, ***California’s major electricity provider PG&E went bankrupt***, signaling a serious problem in any attempt to reorganize or restructure the power distribution in that state. With billions in unpaid electricity costs, it also made the supply of power to that region a “cash-and-carry” proposition, a catastrophic shift in business. Coupled with the state’s tough environmental lobby, determined to stop any new power plant construction, California is now on a collision course with repeated and perpetual power failure all over the state. The

economic fallout from this stellar model of bad planning is almost certain to be an exodus from the state of technology-based industry if electrical black-outs and uncertain service continue.

Outside of California, many private ventures have leapt into the power generation business in 2001, quickly constructing new gas-fired turbine generation plants, presumably to capitalize on the very high kilowatt –hour prices experienced in early 2001. What makes this an interesting strategy is that natural gas is already in a *shortage* situation in many areas, so the viability of these newest plants is certainly a questionable solution as long term energy sources.

Housing is also in an embarrassing state with regard to energy efficiency. Far too many homes are still made with single pane glass (rather than thermally insulated double panes), woefully inadequate insulation and poorly thought out heating and cooling. Better thermal design can reduce energy consumption all year round, and many homes can become largely self-powered for a significant period of the year. Ground based thermal wells, and solar power and heating are all very viable and practical today. There is a popular misconception that insulation is only needed in cold climates, when in fact it is required in any climate to maintain stable temperature, and hot climates exhibit huge energy consumption increases for air conditioning and cooling if insulation is not adequate.

Thursday August 14th 2003 was an amazing day in North America and the best illustration *ever* of upset events and the extraordinary linkage between systems in our modern technological society. By 4:11pm on that Thursday, the electrical grid surrounding the great lakes, including the province of Ontario in Canada, and the states from Ohio to New York in the US north-east, would be in an almost total electrical black-out condition.

An astonishing 50 million consumers suddenly found themselves without electricity within an interval of only 4 minutes, as a

cascading grid failure brought down many unrelated, but interconnected power plants of all kinds and unrelated energy providers. The problem is thought to have originated in Cleveland, Ohio, as electricity provider FirstEnergy experienced problems with 4 different power lines. A critical warning system that *should* have annunciated in a flashing red screen on monitors throughout their computer network was inoperative.

While ongoing investigations have yet to show the exact sequence of events and the precise trigger event (possibly as trivial as branches on a power line), some localized disturbance seems to have first created a load failure, then an outbound surge. This undetected deteriorating situation allowed the local event to expand and cascade through the entire eastern electrical grid in only a few minutes, crashing plants and substations over a huge area as a massive surge tripped safety interlocks over more than a thousand miles of interconnected power grid.

Power would not be fully restored for days, and major metropolitan cities like New York, Toronto and Detroit went without power, public transportation or street and traffic control. Cleveland lost their water and sewage systems, and even 5 days later, all power consumption in the affected areas had to be curtailed dramatically (often at or below 50%) to avoid bringing down the grid again. Fresh produce and food spoiled all over the affected area, and hospitals reported a large spike in food poisoning cases. ***On the first night, hundreds of thousands of commuters were trapped in downtown areas, and had to sleep on sidewalks, lobby floors and garage parking areas.*** Cell phones proved largely ineffective as their repeater stations power backup quickly failed as the blackout continued, and both land based and wireless communication was literally wiped out for tens of millions of people.

In a moment, they were transported to a third world existence, with an uncertain return ticket. People also learned that it is not as simple as just “switching it back on”, as huge areas remained blacked out through the weekend, with limited supplies only

restored by Monday in time for a nervous return to work by many. The event refocused attention on a power distribution system long neglected, and of very mixed quality and reliability. Memories are short, however, and other than assessing blame, there is little serious interest in coming to grips with the ongoing enormity of this problem.

Although critical to the daily existence of millions, this critical infrastructure has had little upgrading since the 60's, and virtually no community wants either power lines or generation plants of any kind in their area, no matter how acute their energy shortage might be now or become in the future. Nobody wants his or her own garbage either. This illogical situation is the result of very strongly held but impractical attitudes among many citizens who insist on a high standard of living and ready power, ***but who will make no accommodation whatever to achieve it.***

This closely parallels the situation in California where Proposition 13 froze property taxes long ago, which inevitably meant a steady and dramatic decline in public services, infrastructure and quality of life. This was of course followed by an outraged clamor for better services and road repairs as the budget shortfall widened over time. As of 2004, and continuing today, California faces an exploding multi-billion dollar budget deficit brought on by serious revenue shortfalls, ongoing debt service costs and staggering increases in energy costs. By 2010, the budget shortfall was over US\$42B, and the state was paying some debts with IOUs.

In October of 2004, the cost of crude Oil rose to the (then) highest levels ever recorded, and that had been previously tied to projected economic collapse and recession. Costs reached US\$54.76 a barrel (Oct. 14, CNN). The impact on upcoming winter heating costs, transportation and the delivered cost of all goods is dramatic, and threatens to trigger a global recession. If it were not for the world's enforced preoccupation with Terrorism, US Elections and the war in Iraq, the effect on the economy

would already be staggering as the real impact of these issues appeared.

That peak soon became history, and world prices spiked above an incredible US\$70 a barrel in September of 2005 after the impact of Hurricane Katrina on the Gulf Coast. Prices would eventually spike to over US\$140/barrel. While there is some clear grotesque profit taking involved here, there is also a darker message about the costs of available energy, and its world impact. Only a world-wide recession knocked oil prices back to the US\$40-50 /barrel level in 2009, but innate pressures soon elevated the price back to \$80/barrel by early 2010.

- **Fiscal impacts of upset events are never pretty**

Despite considerable spin-control, US fiscal performance is already suffering, with more airlines like Delta and Northwest Airlines both filing for chapter 11 bankruptcy protection in the fall of 2005, tied mainly to exploding energy costs. The fixation of tax relief by governments as the only economic stimulus without regard to costs has erased a US\$5.6 Trillion budget surplus in 2000, and replaced it with a budget deficit that has risen to the highest level in history, US\$8.69 Trillion in 2007. The sheer size of this debt is breathtaking. It's certain that without the Iraq war to divert public attention; the economy would have been center-stage in everyone's mind.

The US budget surplus of 2000 was earmarked for refunding of Social Security, and funding of critical infrastructure. Instead, for most people, it became a meaningless US\$600 tax refund check, and their future was quietly squandered away, with no real task addressed, and the treasury looted. The burden of the US\$8.69 Trillion deficit choked the world economy in 2007 and beyond, and is already reducing the value of the US Dollar by more than 15% globally.

2006 and 2007 revealed that many employee pension funds, even at the state level have been systematically gutted, with company and government contributions far below what is required for payout. This revelation has considerable implications for many employees, as they now face government programs that are exhausted for funds, supposedly secure but actually bankrupt private pensions, and endless rounds of corporate downsizing.

2006 also began the serious downturn in housing and the realization that most people had debt obligations far in excess of anything they could possibly repay. Rising interest rates have started to trigger huge (sometimes 100%) increases in monthly payments for many *variable rate mortgages*. Homeowners that had been tapping the “equity” in their homes to pay down huge credit card debts soon discovered that falling price meant there wasn’t any equity, while rising rates, and ingenious but deadly mortgage structures were about to push them into default.

Housing has served as the simple investment for almost everyone, certain to appreciate, and easily liquidated. 2007 is showing just how mis-guided those expectations really are, and how wildly impractical and unrealistic housing prices in the \$300K to million dollar range have become. This has serious implications for the financial stability of every citizen that is over-extended, but with any luck, it will bring housing prices down to more affordable levels while it ruins millions in the process. Every North American “sub-prime” mortgage lender is now in serious trouble with non-performing mortgages, and investors that snapped up the flimsy financial vehicles that were used to spin off this liability are finding their investments rapidly shrinking in value.

2007 through 2009 would see the rapidly escalating collapse of first the sub-prime mortgage industry, then housing, then banking and finance. It is still very unclear how the world economy will adjust to such a massive upheaval. By some estimates, literally half the “valuation” of world assets has disappeared in this turmoil.

Privatization and deregulation of power generation has proved a certain recipe for both fiscal and energy supply disaster all over North America but continues nevertheless because it can make short term profits for a very few, while doing incredible harm to all. The goals of a private corporation, especially one made of acquired assets via stock and asset purchases, is simply to return the most money to shareholders, with little attention paid to the consumers of power or their future needs.

Rates inevitably climb, infrastructure deteriorates, and often corporate collapse follows after the system falls into insolvency, often triggered by skyrocketing fuel or transfer energy costs, creative accounting, or system failures. The collapse of energy broker Enron is the most dramatic example of this unattractive company scenario, but it will not be the last example. The supply of energy is a situation (like water supplies), *where the public good is the paramount consideration*, and either a well regulated or publicly owned structure is far more efficient and ultimately cost-effective at delivering this service.

All of these energy situations combine at random to trigger upset events of considerable impact. It is critically important that we look to our larger survival in a significant way, and make some good decisions about energy without delay, from consumption to generation. Waiting until the problem is fully engaged and the time for effective correction has passed, is definitely the wrong approach in this area.

It is important to remember that in business and world economics, as in so many other human activities, *human survival is always optional*, not mandatory, and money is a *variable*, not a constant.

● 11

Crime is contagious.
If the government becomes a lawbreaker,
it breeds contempt for the law.

Justice Louis D. Brandeis

He who allows oppression shares the crime.
Erasmus Darwin

God is not finished yet.
Walter Shawlee 2

A state is better governed if it has but few laws,
and those laws strictly enforced.
Rene Descarte

Those in power want only to perpetuate it.
William O. Douglas

Ours is a world of nuclear giants and ethical infants.
We know more about war than we know about peace,
more about killing than we know about living.
Omar N. Bradley

The more corrupt the state, the more
numerous the laws.
Tacitus



War and Crime

Business considerations aside, it helps to remember that some of the *truly pivotal* upset events in human history revolved around our ability to *destroy ourselves*, and include such sparkling moments in science as the development of the sword, gunpowder, dynamite, ballistic missiles, nuclear weapons, germ warfare and particle beam weapons. Civilizations have been shaken, and history profoundly changed, by the group with the best armament, and it is *unwise to ignore the*

astonishing power this level of applied violence will always have in our lives.

To put it in the clearest possible perspective, business is only ***possible*** when ***sufficient law and functional enforcement of that law*** exists to ***make it*** possible, otherwise property and the control of value simply winds up in the hands of the most powerful, and ***viable commerce is effectively destroyed***. This is the painful lesson being played out in countries like Russia, Columbia and Mexico today, to the detriment of the entire world.

The most severe example of a current culture damaged by essential lawlessness is Haiti. It has suffered for almost half a century in a succession of corrupt and abusive governments, and was an international outcast before that, subject to punishing embargoes that plunged it into crushing poverty. It has no effective courts, police, laws or social structure, and virtually no functional industry left. It is entering the 21st century in a state of critical economic and social meltdown, and it is difficult to even conceive of a policy that can bring it back to life in an effective manner. They are serving as a stark object lesson to the world of the penalty for chaotic disorder, and paying a terrible price in the process.

Russia has also fallen into a somewhat chaotic legal state. There is rampant tax evasion by the rich and poor alike, consolidation of economic power into a few oligarchic enterprises that have monopolized the country's raw materials wealth, and a largely dysfunctional and impoverished government unable to care for the citizens thrust unprepared into a cruel and heartless version of capitalism. The transition has left millions of government workers in idled enterprises poverty stricken and unpaid, stripped the medical system of its funding, and left everyone to fend for themselves. Crime has seeped into the power vacuum, and is crushing the life from what remains. Russia has known tragedy in many forms over the last hundred years, but this is truly the most heartbreaking. The Russian Ruble which once traded at par with the US Dollar now sits in 2009 at 1/36 of a US Dollar. The

comparison with the Euro over the last few years is equally startling.

This “lawless commerce” model is operating to some degree in many countries that sit at the bottom of the economic ladder. The tragic aspect of their situation is that they cannot possibly improve their economic situations until functional law enforcement and its ethical and moral foundation is established, so that business can begin to operate without endemic corruption, political mis-management and graft. ***Many people fail to understand that it is the extraordinary mixture of cooperative, law abiding civilization with respect for the rights of the individual that permits business to operate***, all other combinations are simply dysfunctional from a commerce viewpoint. This is an issue often overlooked, and poorly detailed in political positions, but it has sweeping significance in creating and sustaining business.

Business that eventually comes to displace law, or to effectively circumvent it, is equally dysfunctional, and is just as destructive to the culture it lives in. Many businesses aspire to this level of control and influence in the western world, but fail to understand the cataclysmic outcome of such control, and the deterioration it inevitably represents. Recent economic events are certainly helping to illustrate it, though. ***The USA is a classic example of this influence gone awry***, as corporate influence was willfully exerted to remove business regulation that inevitably led to huge abuses, the sub-prime mortgage melt-down and eventually collapse of many Wall Street institutions. In this way, ***we have become as corrupt as the worst third-world nation.***

The loss of respect for legal and political institutions caused by the unsubtle application of corporate (or criminal) influence over laws and regulations is systematically destroying the fundamental fabric of many otherwise successful countries, including our own in the west. ***Loss of ethical standards is fatal for any culture***, and its effects can be swift and ugly when they appear.

Unfortunately, this loss of ethical and moral standards can be a bit like the frog in the slowly heating pot of water. For a long time, it seems like not much is happening, and the frog remains happy, if increasingly warm. At some point, however, the frog dies, and so will we all, if we permit everything we value to slowly leak away without comment. Each small step seems unimportant by itself, but the cumulative effect is devastating over time.

In 2002, the world would be treated to some stunning examples of corporate disregard for law and ethics. The accounting firm of Arthur Anderson would be found guilty of shredding corporate documents from Enron, and aiding in the cover up of one of most massive frauds in commercial history at Enron. Not to be outdone, the Telecom sector produced a US\$3.8 Billion dollar accounting fraud at Worldcom, leading to the almost total meltdown of the company (shares dropped to \$0.06 at their low point, when trading was halted). This fiasco at Worldcom cost 17,000 workers their jobs, and sent the stock markets of the US into a steady decline. Public confidence was seriously shaken by the brazenness of the fraud, and the clear indications that many more companies would soon recast their statements to show far different positions. ***The villains were unmasked, but there were so many, it literally took everyone's breath away.***

A steady parade of companies in 2002 to 2003 showed similar questions of credibility, including such giants as Xerox, with a billion dollar correction to their financial statements. The SEC (Securities and Exchange Commission) is now “committed” to more serious policing of listed companies, but it is clear their previous hands-off approach at the SEC helped create and encourage this situation in the first place.

All of this activity is driven by nothing more complex than greed. Corporate officials want to benefit from stock options and perks tied to stock prices, and it is clear that the incentives (all misplaced) select for and encourage this type of fraudulent behavior to the detriment of everyone. The current ethical

standard in play seems to be that no act or deceit is really too much if one benefits personally as a result.

Internationally, many outspoken European financial analysts have been making the one statement the USA could not afford to ever have made: ***The USA is simply no longer a trustworthy or credible place to invest.*** This comment will come back to haunt every business, and the stability of the US government for decades to come. While it has received little publicity here, it is certainly center stage elsewhere. Investment revolves around trust, and when that evaporates, so do those investors. The falling US dollar exchange and rising national debt are ongoing reminders that fiscal trust remains elusive. To buy a Euro in May of 2009, it was US\$1.40 (it was at parity in Sept of 2003), and this with the Euro community embroiled in considerable recession, and debt problems with member countries like Greece and Italy. One can only wonder where the dollar might sit if people didn't have other distracting issues to worry about.

The erosion of ethical standards triggered by this kind of public crime is very deep, and it helps pave the way for much more serious ethical lapses. In time, almost anything is seen to be acceptable, and it makes the transition to, and acceptance of, national policy excesses very easy.

Crime has become a backdrop to many parts of our lives, and this is a trend that is incredibly dangerous, as it is hard to reverse. It bites into the fabric of everybody's lives, does incredible direct damage, and quickly lowers moral and ethical standards to dangerously low levels throughout society.

While Americans are still shaken by the terrorist attacks of September 11, 2001, it is noteworthy that the less than 3,000 fatalities in total from that day are hardly a footnote in the vast numbers being murdered world wide in the pursuit of some unjust cause or another. Millions have died elsewhere, but they get very little airtime in the west.

On a more blatantly combative level, 2002 also set the stage for a steady worsening of warfare worldwide. The conflict between Israel and the Palestinians has degenerated into a senseless progression of murders and military operations to no useful end, and each incident merely makes a practical solution more elusive. The number of possible opportunities for real progress that have been wasted are simply too numerous to count, so the endgame is becoming less rational with each passing day. The hardening of the US position regarding terrorism, and the clear association of that label and its consequences with the actions of Palestinian groups like the PLO, Hamas and Al Aqsa makes everyone's situation more desperate, as discussion or negotiation are now not even realistic options. What does that leave?

The whole world held its breath in June of 2002 as it appeared ***that nuclear war could erupt between India and Pakistan*** over the hotly disputed region of Kashmir bordering both countries. Kashmir is the public reason for general consumption, but the lasting scars from partition over 50 years before remain unresolved and irritating, as do the murders of many Indian congressional politicians by terrorists in 2001. Many countries evacuated civilians from both India and Pakistan, and while tensions have now reduced, the problems remain just as they were, unresolved, and waiting.

The US invaded Afghanistan in 2001 under a loosely defined coalition, hoping to strike a definitive blow against terrorism and Al Qaeda and the Taliban in particular. This has proved very difficult to do, although the Taliban have been largely displaced from power for now in Afghanistan. Unfortunately no key figures were either caught or killed, such as Bin Laden or Mullah Mohammed Omar. This lack of perceived resolution is entrapping the US in a long term struggle of uncertain ends and exits, and large and unending costs, and enshrining a culture of perpetual fear as the norm. Moving the war effort to Iraq has simply left Afghanistan in a limbo state, and may leave it too weak to avoid a resurgence of terrorist activity in the near future, despite eventual NATO involvement.

The lack of a decisive resolution spawned other parallel anti-terrorist activities in the Philippines and led to the invasion of Iraq. The real anti-terrorist goal is becoming less clear in all these discussions, and the exit strategy has almost vanished, but the machinery of war is sometimes difficult to wind down once it starts to move, especially if no clear victory is found along the way to justify the start. The desires are clear, to catch and punish those responsible for terror, and to restore security at home. But neither one may really be possible, which is a future no one is eager to face, but which remains likely regardless.

Spring of 2003 brought the US-led invasion of Iraq, after a bitterly divisive UN battle to gain support for the invasion. The arguments polarized the world and failed to bring widespread support for the war, and have so far failed to be proven true by early 2007, further worsening attitudes. The war did not end swiftly, as projected by the US, and has no certain end in sight in the near future. This conflict seems destined to leave the world with very altered perceptions of US foreign policy. US credibility has taken a real beating with many long time allies, and coupled with rising deficits to fund the war, is steadily depressing the value of the US dollar internationally, and increasing terrorist tensions domestically.

2010 still finds the USA mired in Iraq and Afghanistan and with a very low percentage of the population in either country happy about it. The rhetoric about Iran is heating up, and Iran seems committed to continue atomic fuel enrichment despite UN directives to stop. The stage is being set for a much larger scale war in this area, blissfully unaware of how large and far-reaching that conflict could become in a heartbeat.

War has a very clear purpose, which is the large-scale resolution of conflict, and human history has enough of them to show that for the most part, they are satisfactory for that task, although at a staggering cost in life and resources. *They also seem to inevitably set the stage for the next one*, if the memories

are too vivid, and no resolution is really achieved. If in our philosophy life means nothing, and no atrocity is too extreme to commit in pursuit of our self-defined just cause, then war will clearly remain our method of choice for serious problems, and we simply cannot ignore that.

I have often met people who feel that war has no purpose, and that it is the worst approach to any problem. While there may be something to that position, it remains true that war is the conflict resolution method of choice for many, and has influenced an astonishing range of events in our everyday lives. ***If others choose it, and they choose it with you, your effective options are very limited.***

If wars had ended differently, everyone in Britain today would probably be speaking German, and the Chinese and Koreans would be speaking Japanese. War removed Carthage as a threat to Rome, almost made Texans into Mexicans, removed Germany as a threat to Russia, and created the United States. It has tormented and butchered Africa, and is always with us somewhere. Just like crime.

Both these issues of crime and war visit the careless and the indifferent regularly, ***and history loves to revisit the inattentive.*** My heartfelt advice is to always go suitably armed, or wish to be eaten. ***The world is always a very dangerous place for the inattentive and careless.***

● 12

When I am working on a problem, I never think about beauty.
I think only of how to solve the problem.
But when I have finished, if the solution is not beautiful,
I know it is wrong.
Buckminster Fuller

Nothing in the world, not all the armies,
is so powerful as an idea whose time has come.
Victor Hugo

I have not seen any problem, however complicated,
that when looked at in the right way,
did not become still more complicated.
Paul Anderson

A new idea is delicate.
It can be killed by a sneer or a yawn;
it can be stabbed to death by a quip
and worried to death by a frown
on the right man's brow.
Ovid



Research & Innovation

I am indebted to John Roberts at NAT for the observation that at every point in the development of a new product or research project, there is always a spot on the flowchart or Gantt chart that should be appropriately marked “*insert miracle here*”. The rocket science pioneer Werner von Braun also noted “*research is what I am doing when I don't know what I am doing*”.

They both understood that there is always an element of *uncertainty* and *good fortune* in the progress of all innovation.

No activity is more complex or important to companies than their ability to reach into the future and see what will be required for their continued success. This is not only an issue of products and new science, but also one of staying in touch with customer desires and expectations. This is a mixture of strategy, luck, insight and work, with no real guarantee of success. Sort of the big track & field event in the Wishful Thinking Olympics.

Many firms are *reactive* in this area, and are constantly struggling to stay close behind their competitors. This is not an attractive competitive position, and has the added strain of uncertain vision, which is soon communicated throughout the company, and often fosters marginal and mediocre performance as the norm.

One of the biggest challenges in design is *determining the customer's unspoken need*. Making an axe handle or spoon is pretty simple, but if you are the *first guy* to ever dream up either of these, it is *not so simple or obvious*. This leap of insight, and willingness to proceed into truly uncharted territory is very useful to anybody involved in product design at any level. This situation is not just thinking up a radio with a built in flashlight, it is the ability to materialize things that do *not even have vocabulary to describe them*, and for which there *is no body of prior art*.

The critical position is to be *proactive*, and have close liaison with your customers, taking their needs to the best solution you can, using the special talents your company and staff may possess. This allows you to *lead* the solution process, and be sure of some acceptance, rather than copying older, fading designs and strategies which no longer really suit the customer's needs. The higher the perceived *level of ownership* your customers feel in the eventual design, the more likely they are to accept it, and in turn, promote that product and concept to others.

It is important to know when to stop the process and show the results to customers, because real improvement will *require their reaction and comment*. That moment when it is safe to (as Ken

Veitch, one of the founders of NAT put it *so* succinctly) “**shoot the engineer and ship the product**” is where good judgment and design management comes in. Far too many products are routinely shipped in only a “partially-baked” state, and left for customers to untangle and struggle helplessly with, while an equal number sit far too long being buffed, tweaked and chromed, miss their optimal delivery date, and become irrelevant in the marketplace as a result.

There is often the desire to be the first (with the worst) in the market, and this may badly warp the judgment of everyone involved. The thought that customers will somehow forgive a poorly working product to get a taste of leading edge technology is completely, totally and dangerously *wrong*. ***It’s always the task, never the technology that is critically important.***

In my mind, the cardinal and inflexible rule of all design is:

Functionality first.

I put this short but essential message on the wall of NAT’s production facility, facing into the R&D area, so that no one would *ever* forget it:

If it doesn’t work, nobody needs it.

I can certainly think of quite a few products that would have benefited from a few more days in design and *testing* before being turned loose on an unsuspecting world. You might want to sit down with a pad of paper and list a few that have really irritated you, as that may help to remind you ***not to do the same thing yourself later.***

Designs ***are never really finished.*** There is always some room for better product quality or features, or improving the assembly and its resulting cost. When coupled with customer feedback, this internalized process for ongoing improvement and innovation

can help evolve good products and ideas into *great ones* that really excite the customer.

W. Edwards Deming had one key concept that was the pivotal foundation of his entire philosophy about quality and the management and operation of companies, and is at the core of all good design strategies:

“Improve constantly and forever the system of production and service.”

(from his 14 points, in chapter 2 of “Out of the Crisis”, MIT Press)

It is perfectly OK to throw out years of work, and start over, if you come to see that is what is really needed by the customer, and to produce a better product. Research & Development intrinsically explores many false starts and dead ends, so this pattern is *inevitable*. You have to be able to accept when you have reached one of these points, and be prepared to look at another approach.

Don't fall in love with something for the wrong reason, especially *if you can do better*. No one likes to have their oxen gored or dreams shattered, but it is better to have that battle internally, than to embarrass the whole company in public. Remember that you always want to show the company's best work, even if it is not *your* idea. In a supportive corporate environment, where it is understood that science and business are “*we*”, everyone wins with the best idea.

- **What makes a really good product?**

I have struggled with this particular definition for years, and the best descriptions I can give are these two:

- A good product is clearly perceived by the customer to be **better**, and addresses not only his needs and his budget, but also his **desires**. It often does this in a way that the customer never expected or imagined, but which now seems to be the clearly inevitable solution.
- ***A good design should delight the customer, and depress the competition.***

Customers can usually tell you what they want to do, but ***not how to do it*** or what will work the best in practice. This is where the ***talent part*** enters in from your end. This translation process from information to concept to hardware or software or strategy is usually called Research & Development, Engineering or Product Development. The customer doesn't care what it's called, only ***how well it works in his or her application.***

Doing and managing R&D activity are both areas where high levels of art as well as science are required. The chemistry between staff, ***how they are supported*** and allowed to manage products and programs, are all critical issues in achieving timely and useful results. Each group and product mix will have its own unique characteristics, and no single process and strategy works for every combination. The only generalization that seems to be

widely true is that product development teams produce the best work when they have good contact with, and understand the end users of their work.

Products and services are *your expression of the company* to the customer, and should reflect every aspect of what you think is important, and what your customers will value. If you are not prepared, and your product is poor, that will be the perception of the entire company, so it is important that *everyone* in the design process understand what is involved, and what is ultimately at risk.

● 13

Money is a fiction--an abstract construction of the mind—though it can be given symbolic expression in a piece of gold, a piece of paper or a book entry. The concept of money is one of the great feats of man's imagination which has proved to be as central to the development of economic life as the wheel was for transport.

Harold Lever,
Economic Adviser to the British
Government
From the Book of Money
by Klaus Heidensohn

If you would like to know the value of money, go and try and borrow some.

Benjamin Franklin

Value is the life-giving power of anything;
cost, the quantity of labor required to produce it; price, the quantity of labor which its possessor will take in exchange for it
John Ruskin



A slightly different view of money

While many people see money as a constant, rock-solid, perpetual aspect of human civilization, nothing could be ***farther from the truth.*** Money is a relatively transient thing with little absolute value, and no permanence whatsoever. It is only a creature of our economic convenience that makes widespread commerce possible.

The use of money (in coin form) dates back to

at least 1100 BC, and it has been a part of virtually every civilization on record in some way. In general, money had the form of standardized size of a valuable material, such as silver or gold, but also took forms like cowry shells, salt and beads. Older money had one important aspect that is now missing from modern money, which is that it had some *intrinsic material value*, in terms of precious metal or other material content. This made it quite difficult to create fiat or inflationary money, as *valuable raw materials were needed to make the money itself*.

By the turn of the 20th century, the rise of paper money signaled a very dangerous trend in the entire concept of money. Money was now simply printed as needed by governments, with only the *promise of exchange* for precious metals. Notes were denominated in terms of fixed weights of gold or silver, but then arbitrarily re-valued at the whim of governments to suit changing economic conditions. Eventually, even this modest *promise of exchange was eliminated*, creating a totally new concept on the world's economic stage, *money completely without intrinsic value*.

With the de-coupling of the US dollar from even the modest security of gold in 1934 by the Gold Reserve Act, and complete *elimination of the gold standard worldwide* by the International Monetary Fund and US Congress in 1978, a real threshold was crossed in international finance. At that point, dollars became completely floating currency, with no collateral or exchange value of any kind.

With the US dollar used to denominate many international transactions, most trade became *truly discretionary in terms of real value*. It was no longer equal to a given amount of some precious metal (not that the metal had any cosmic significance, but at least it was *clearly definable*), but was simply equal to whatever people could mutually agree it was worth. This was not a great moment for world finance, frankly, but a marvelous opportunity for speculative scoundrels, thieves and unscrupulous governments.

By 1980, no world currency was redeemable for gold, and a serious and uncontrolled expansion of currency had already begun in terms of the elusive “Euro-dollar” market. These were uncontrolled US funds on deposit in other countries, mainly Europe, which were then re-loaned after accumulating further interest at arbitrary bank deposit ratios. This allowed more than \$1 to eventually be loaned for every \$1 on deposit, especially when cross-security of deposits or assets is used to loan still more money. These dollars in turn get re-deposited and re-loaned in the same gradually inflationary manner. The impact of this, just as with banks in North America, is to make available ever increasing amounts of money, enlarged by interest, that is ***totally and completely without foundation of any sort***, never having been issued or sanctioned by any government, but created only by ledger entry.

To be fair and complete, it is important to note that most loans have some type of collateral security, but many do not, and many use ***real estate*** as the essential security. It is exactly this use of real estate, and its own ***variable valuation*** (again by common consent and market forces) that led to so many Savings & Loan failures. Real estate values, particularly in Japan, have also secured many business transactions, but have now fallen in market value to the point where there is widespread risk of loan default, and the resulting financial disruption that will follow. The rumblings in the financial community world-wide all during 1995 and continuing right through 2000 over the precarious state of Japan’s banking system, due to extensive real estate and corporate share securities, signaled a dangerous trend in world finance. Japan has been a source of major economic investment and growth all over the world, and if it should be seriously shaken in the way Mexico was early in 1995, the results will ripple through every currency.

2006 saw the beginning of a complex shift in the market value of real estate world wide, as the endless upward valuation of property finally ran into a reality check. Many people had used

the “inevitable appreciation” of their property as a bank to fund debt, confident it would never have to be paid back. The huge upward shift in mortgage rates and payment, especially ARMs (Adjustable Rate Mortgages) and other interest-heavy, principal-weak derivatives, began to destroy this myth, as many lost their homes entirely, and soon found themselves drowning in debt.

Of particular importance to this problem was the creation of the “sub-prime” mortgage market, where people who had poor credit, little or no documentary evidence of income, and no other equity could be financed for a house mortgage. Predictably, these financial instruments were loaded with fees and charges, and exploding interest payments. Everyone along the way got their cut, the homeowner was saddled with a house far beyond his means, and the risk was sold off in a financial instrument of some kind. With the deteriorating economy, rising fuel prices and shrinking incomes, the rising interest rates simply made payments impossible, and delinquencies began to ripple through the market. This lowered housing prices, further worsening the situation, as homeowners couldn’t even sell to escape, and the process accelerates. 2007 saw a sea of red ink in mortgage lenders, a huge drop in housing starts, and a further worsening of the economy, which simply feeds the machine.

2008 and 2009 marked the complete disintegration of the world financial system, triggered first by the collapse of sub-prime mortgages, then in a widening spiral, ludicrous derivative financial products, CDO’s (Collateralized Debt Obligations) and so forth. As of February 2009, it was reported by the CBC that some US\$50 Trillion dollars of value has disappeared from the global economy in terms of currency, equity and bond markets according to the Asian Development Bank. It is a violent re-adjustment of values back to what the market will really pay, rather than what the economic cheerleaders have been trying to convince us is the true value.

In North America, the increasing use of “credit” cards, also ballooned the money supply, and created fiat money on an

unprecedented level in human history. Banks are not the only source of this “new money”, as almost every business also *extends credit to customers*, via its own cards, open account transactions, and credit terms such as vendor financing. In essence, credit was created with nothing to support it except the statistical expectation that it would be used appropriately and repaid, and real control of currency was finally lost to virtually every nation on Earth. While this money supply far in excess of official M1 numbers made commerce possible on a massive scale, it also *hollowed out the worth of all things*, raising prices and costs, but not creating any new value or resources.

To put it simply, money is worth what *we say it is* at the moment, and there can be as much or as little of it as random policy decisions dictate. No important principles guide these decisions, they are made largely on issues of desperation, panic and greed, and are then driven into a speculative frenzy by uncontrolled international currency trading, political considerations, and transient current events. High speed data transfer, computerized trading and other instantaneous news services also propagate these events and their commentary far faster and to more places than ever before, heightening their impact, and removing natural system slowness that has dampened the effects and damage of these radical changes in the past.

Major currencies that have been seriously altered by this process recently in the 1990’s include the US Dollar, Japanese Yen, British Pound, Mexican Peso, Swedish Kronor and Canadian Dollar. Since their value in relative terms is now simply what people agree it is, it can shift abruptly when agreement changes on value, sometimes plunging the *entire country’s economy* into unanticipated trouble.

If that wasn’t irritating enough, internal bank interest rates in any given country are tied to internal *currency support*, often resulting in dramatic changes (with massive business implications) in the cost of borrowing to provide support for an endangered currency. To give you an example, a loss in

confidence abroad, based on a minor political event, can decrease the trading or conversion value of your currency; its ***exchange rate***. This drives interest rate hikes to support the desire for deposits in that currency, which increases your cost of borrowing at your local bank, and increases the cost of everything you import. It can also make your goods less expensive in other countries, as an export, if denominated in the right currency.

Now here is the essential issue. Money is a ***convenient*** (but unstable) ***measure of relative value*** so that we can trade back and forth, without having to carry bushels of wheat and herd flocks of sheep into a corner store as barter goods for an electric razor or tube of toothpaste.

As a ***reason for doing anything***, it is both transient and arbitrary, and at the end of the game, largely worthless. As it was widely observed during the depression, and in Europe during and after World War Two, you can't ***eat*** money.

Before you make money a major issue in anything, be sure you understand how truly valueless it really is, and how it can fail you completely at a moment's notice. A few years ago, the Russian Ruble traded (officially) at par with the US dollar. In February 2009, its value was 36.4 to the US Dollar (itself seriously degraded), and the Russian economy is badly damaged, possibly beyond conventional repair. People who had jobs, houses and food a few years ago are now destitute, with little hope of a short-term recovery. Crime and inflation are rampant, and the stability and structure of the country are collapsing. Interestingly, this description is now starting to apply to North America as well, an exceptional bit of irony. You can track the value of the Ruble here: http://en.wikipedia.org/wiki/Russian_ruble

There is a very good discussion of the value of the US dollar here:

http://useconomy.about.com/od/tradepolicy/p/Dollar_Value.htm

Until the late 1980's, The Soviet Union was an unquestioned nuclear Superpower, today Russia is struggling to survive

(although still very nuclear) the evolution into a more free market economy. ***No country is immune to what happened to them, and no money in existence has permanent value that will survive any upheaval.*** This is already being demonstrated again with the US Dollar and the Euro. The onset of widespread computer credit and the further ***decoupling of value from money*** is making it even more arbitrary and volatile on an unprecedented and massive scale. If we don't learn this lesson, and the upset event tied to all money, we simply risk its endless repetition and unhappy consequences.

● 14

It may be that those who do most,
dream most.

Stephen Leacock

Perfection of means and confusion of ends
seems to characterize our age.

Albert Einstein

If at first you don't succeed,
you're running about average.

M.H. Alderson

Some people handle the truth carelessly,
others never touch it at all.

Anon.

All empty souls tend toward extreme opinions.

William Butler Yeats

Education cannot be substituted for intelligence.

Gerald H. Grosso

Much more is known than is actually true.

J. R. Pierce ('50s and '60s Bell Labs worker)



Education: The often mis-firing magic weapon

Every nation, whether large or small, *has the ability to transform itself into a new future through the influence and impact of education.* This is a social force of incredible power, literally a magic force that can change cultures and alter the path of history yet to come. For the most part, we waste it on the memorization of city names and multiplication rules, and see it as an opportunity to grade and categorize the nation's young for our later casual convenience.

When we educate ourselves, we pass on our understanding of the world, largely as it is now, and subject to our individual talents and vision. Usually we teach *what*, and not why, since the *why* may be more difficult to explain, locally controversial, and less convenient to grade. History has become only the recital of dates and players, not the *reasons* for war or exploration. Math the boring subject that involves trains racing toward each other for the greater glory of word problems, rather than being the analytical key to the universe. We have also become truly obsessed with the naming of things, as if that somehow substitutes for the understanding of the thing itself. Unfortunately, names are often just empty knowledge, whose only purpose is to identify the eligible players and pieces, explaining nothing.

Each student is treated as a special case, graded and judged in isolation, *and cooperation is seldom encouraged or rewarded* unless on the playing field in some team sport. Even then, the stars are treated well, and the rest are seen as window dressing or convenient stage props to showcase the better players. As a final insult, students are then categorized and forced to fit some woefully mis-applied bell curve for “grading”, no matter how poor a fit this may be in practice.

For most children, schoolwork is rarely exciting, and seldom informative or interesting. For our society, this is a wholly escapable tragedy, and one that we will pay for many times over in the years to come.

For education to serve us all well, it must *first teach people how to teach and to learn*, and how to *share their understanding* with other people. The simplest way to begin to do this is to have older children help to teach younger ones as a regular part of their education. This program is already in place in some BC schools, and serves as a valuable tool to help students who are having difficulty, as well as instilling some responsibility and compassion in older students.

An already popular and productive program, *work terms* and student work placements need to expand and develop so that children see what work and potential jobs are like long before they have to make all of their educational decisions. Work placements also allow people in industry to share their own knowledge and improve their own understanding by regularly teaching others who may be interested. Everyone involved benefits from this interactive process.

It is important to remember that we are different people to everyone we come in contact with, in education as well as romance and every other area. Some bring out our best features, and some our worst through mutual interaction. *And while we may not see ourselves as changing in these different settings, it is true none the less*. Every educational setting and instructor will have a different impact on the same student, and that student will appear quite different to each instructor. It is especially worthwhile to remember that the setting that brings out the best features of each person is *not universal*.

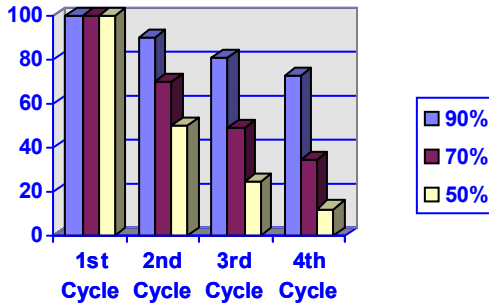
Our goal must be to *convey understanding* and help develop competence in essential skills. Every class of students must understand that our goal is not met until they have *all* achieved that position. It is *not satisfactory* to have some do well, and many do poorly.

There is *no escape from each other in the world*, we will all suffer if we accept marginal education as satisfactory. Who will visit a doctor or car mechanic with 50% competence? *There is no job that is so irrelevant in the world that it can be done poorly. It's worth remembering that we are all sitting in a very small boat, and none of us is untouched by the actions of the others.*

It is critically important to understand that the concept of 50% competence has within it a dangerous flaw that is largely to blame for many problems in North America. This is simply that the 50% level is *50% of what the teacher knows*, which may in fact,

be far less than 100% mastery of a given subject. This decreasing competence spirals downward at a fantastic rate, once it is accepted as a workable method.

A comparison of the results of competence transfer rates



After 4 generational cycles,
the 90% group still has 72.9% competence
The 70% group has only 34.3%,
but the 50% group has only 12.5%

While this is a highly simplistic model, I have to consider that this point needs to get through to many people that may be at an unattractive point on this graph, so some simplicity is called for. The inescapable fact is that to get good results, you need good standards, which get ***regular outside review and independent test to stay good***. This is just like calibrating an electronic meter, the use of regular external standard checking is essential to maintain viable and accurate systems over time.

This is understood in the manufacture of almost everything, is the cornerstone of all calibration, measurement science and metrology world-wide, but is ***completely ignored*** in education to our extreme detriment.

And what is the expectation in the real world for everyday tasks? 100% competence is the standard. Everybody is expecting you to do your job correctly, all the time, not just on

even numbered days. The disparity between this and education standards is simply staggering.

The concept of grading needs a massive overhaul both with regard to function and delivery. ***The goal of education must be to impart the best knowledge and understanding we can achieve to every student.*** They will be our future, like it or not, and the work product of society that we will all be judged on in years to come. We ***cannot accept*** mediocrity and marginal competence as a routine outcome of this process. We need to challenge them with problems that will ignite their interest, and that will address issues in every community that need solving.

For many skills, ***competence is 100% understanding***, such as basic math. Is math skill without knowledge of 5's and 3's 80% competence, and should that get a "B" grade? Hardly. Many skills have ***threshold competence that must be achieved***, and to have less is actually to have ***nothing*** in practice.

The concept of "curve grading", which is a gross misapplication and totally false understanding of statistical distribution, should be completely abandoned. The idea that there can ***only*** be so many "A" grades, so many "B" grades, that most must be "C" grades, and that some must fail in a given class is completely wrong. There is no reason why interested students and a dedicated teacher cannot achieve ***all*** "A" grades or 100% competence for an entire class. In fact, that ***must become the goal*** of all education, to find out how to interest and educate young students to become fully competent in as wide a range of areas as possible.

Grades serve only one purpose, to illustrate what has been absorbed, and what still needs improvement. Grades are a flag to students, teachers and parents that time has been well spent, or that more needs to be done. They are not really suitable as sorting devices to classify children as stupid, bright or gifted. In different circumstances, all these roles may be reversed or altered. Low grades most often indicate that a student was not motivated,

did not have the right foundation material before the class, or that they did not respond to a given teacher or class situation. Students must be made to understand the seriousness of their lack of attention and interest. A different setting should be tried, to improve that condition, and combined with the help of other students that understand the material and can convey that understanding.

A better grading system should take into account threshold skill levels, and reflect their mastery in a system that is more like many university settings: pass/fail/pass with distinction. Students & parents *must* take more responsibility for these skills, and realize that they cannot be passive players in their education, but must be involved and committed. Students that are disruptive, indifferent or unmotivated need to be placed in other settings, possibly not classrooms, where their behavior won't compromise other students, and where they may find something that *will* motivate them.

Our educational system must also incorporate challenges that cannot be solved by a single individual, but require students *to plan and work together* to achieve a goal. Teams, groups, classes, whole schools and whole cities may look for ways to involve their students in the solution of some problem or situation that affects them all, and needs to be fixed. There is no reason why students should not become involved in the maintenance and upkeep of their own schools, from cleaning to painting and food preparation, or take on public service work. There may be many students that would find those activities far more appealing once in a while than what we are subjecting them to now. They may want to operate a farm, run an internal business, help rebuild houses, publish a paper or operate a recycling station, just to name a few eminently practical possibilities.

We ran a project locally for about two years to test this concept, where we took kids that were interested in computers and electronics, and had them work together to repair & recycle donated computer hardware for use in local schools. The

students got valuable work experience and training, and local schools received hundreds of pieces of equipment they normally couldn't afford in their budgets. This program worked so well as a pilot project, that it is now being expanded province-wide to service more schools and students. It's just one experimental example of how students might work in a non-conventional way to get better educated, and help the other students around them.

The skills required to work in groups are essential for all phases of adult life, and yet are routinely ignored in favor of highly polarized individual achievement. Sports were intended to show this group process, but have gotten so far off track, they are often more harmful than helpful. This hardly sets the stage for good cooperation or teamwork in later business life, and ***fails completely*** to instill the critical skills needed for citizens, voters, employees or managers. This is very risky for our culture, and coupled with an age of ***increasing personal gratification at the expense of others***, is likely to reinforce the worst aspects of our society in an ever-increasing way.

There are many things that need doing in our society, and adults seem to have lost their motivation to do them, so it may be that our children will ultimately be the ones to help revitalize our culture and society, which is quite appropriate. They are already far more aware of recycling and pollution than adults, and are more prepared to adapt to the systemic inconveniences they demand to achieve the benefits. It's unfortunate then, that they are getting such a poor education to prepare for that task.

We ***cannot throw away those that do poorly***; we will have to live with them, and their problems that they bring into their adult and working lives. For this reason, we ***must improve*** our first contact with students to make sure that they understand what is at risk, and why it is so important that they get as rich a range of choices as possible for their futures. No one knows what the future really holds, and what skills and abilities we will need, but we do know that ***strong basic skills and problem solving insight are critical***.

One of the most dangerous developments for human culture has been the explosive and gratuitous growth of *time expiring knowledge*. We have a questionably motivated computer industry to thank for this nightmare. Historically, people could learn a skill, and have some confidence that it would have value for them, and be in demand after their education was completed. This is *no longer true in any field*, and the more common pattern that has emerged is that all education other than very basic skills is already *deteriorating in value* by the time it is introduced into schools.

Many things are now taught that are already displaced or made obsolete, which demoralizes students and teachers alike, and fails to satisfy the needs of the community at large. Only more interactive contact with industry and education can possibly change this pattern, and extraordinary difficulties will remain in some areas where basic tools and what passes for science are changing almost monthly.

At the same time, many things of lasting value and deep cultural importance such as literature, philosophy, history, art and mathematics *are being ignored as irrelevant*. This combination is extremely dangerous on a societal level, and will shortly result in a new population with only the shallowest understanding of their circumstances, and no useful insight into their future.

It is also critical to understand that while *the general society may see itself as mature or knowledgeable in some area*, and understands that it is shaped by the observing of important current events, *this is totally lost on every new child that is born*. *The greatest failing of education is that it has yet to successfully impart the consciousness of current culture to new members*. Every child has to start at zero, and run desperately to assimilate what those around him or her already know comfortably. This is a very imperfect process, and leads us over and over to the same mistakes on both the big and small scale. *This is really the critical achievement required by the human race if it is to ever genuinely improve its state*.

No government can survive an ignorant population for long, especially one that depends on the decision making skills of its citizens, such as any representational form of government. The inevitable social outcome of bad education is dangerous social bias, repressive and totalitarian governments, and the loss of individual rights and freedoms. On a business level, it is low productivity, un-competitive industry and a deteriorating economy. A slow and painful death by any other definition. No binding force is more critical than good education to a society, but very few use this tool well or with any detectable grace.

It is a telling indication of far we have fallen in our quality of education that we regard teachers and their skills poorly, and a far worse situation, that some clearly deserve that assessment.

If I had a magic wand, I would use the incredible power of the movie industry to illustrate and teach history, and the causality of our situation. It could be an extraordinary tool to convey in much more vivid and memorable fashion the key elements of science, mathematics, geography and sociology, and to expose children to the incredible variety of life and culture on this world and others. The written word is powerful, but the full visualization of those ideas is much more powerful, and we desperately need to stop wasting this effort on mindless sitcoms, car chases and gory stabbings and focus it on the education of everyone on this planet. ***When the Oscars routinely feature awards for the best historical film, best science presentation, and best educational work, then we will have finally started to improve our situation.***

The Internet and our ability to search, inform and communicate as never before is an incredible opportunity for everyone. The chance is there to improve and educate ourselves regardless of where or who we are, or our economic situation. If we choose to waste this incredible opportunity on endless pornography and Viagra ads, then our future will not be so attractive.

We put considerable emphasis and significance on science and technology in our educational system, but that status is often misplaced. After thousands of years of human history, it is much more surprising to list what fundamental things we do not know, rather than our “knowledge”.

For example, we have no idea what makes something alive. We can’t measure it, define it or even describe it. What is missing from a person when they are dead? We don’t know, and science is not especially good at analyzing this problem. What is it that makes something just born alive? Where was it before that life occurred, and where does it go afterwards? Where does the organizing force come from that takes one cell and creates a complex living organism? What makes all the cells within a body act together?

In an extraordinary global effort, we have mapped the human genome, and we use DNA evidence every day in court. ***Yet, we have no idea how identical DNA in the body’s cells expresses as totally different cells.*** Hair, corneal tissue, heart and lungs, skin, what makes them differentiate, if they are all made from the same DNA? Such a simple question and yet no answers are looming on the horizon. Why do cells co-operate to form a multi-cellular differentiated organism, and why do they live or die together?

We can’t re-grow tissue like a simple starfish, or really heal most injuries, our medicine remains quite primitive, although it appears very complex and sophisticated. Surprisingly, though we seem to have conquered erectile dysfunction, we are essentially powerless against most viruses, and our entire race could be easily destroyed in a year by something so tiny, we can barely see it with our best instruments. Over-medication has destroyed the value of most of our hard-won antibiotics to fight bacterial infection, and our global medicine chest is quite bare at the moment. It is reasonable to say that we still exist as a species more through good luck than as a result of great curative skill.

Clean food and water and personal hygiene remain more powerful forces for health than medicine.

As we push to both the very small and very large scale of the universe, science and even observation collapses in both areas, and philosophy becomes more significant as we examine the structure of the subatomic and galactic. ***It appears that our science fails at these extremes, and even our basic concepts of matter, gravity, space and time are now in serious question.***

On a social level, we struggle with concepts of good and bad, types of government, crime and punishment, goals and direction. While every culture seems to think its culture and ideas are “clearly self-evident”, the world has considerable diversity, often placed in fierce opposition. What is universal moral behavior, and how can we teach it so that it will be understood by everyone, and percolate effectively through our world? At the very least, we must strive to do no harm, and I am most moved by the statement in Buddhism that “***Goodwill towards all is true religion***”.

There is no question that there is much we still need to know, and the process of education needs to blend with discovery, experience, philosophy and art to unlock these mysteries, and advance our understanding beyond the memorized recitation of names and dates. Our challenges are huge, and the consequences quite unforgiving if we are unprepared.

While society may mature and adopt deeply ethical behavior, or fall into total disrepair, it must face a critical social problem: ***all children begin life in total ignorance of what is socially acceptable or known.*** Every life starts the learning process at zero, and must somehow absorb what is needed.

This is an issue forgotten as societies mature, somehow imagining that whatever they know, and the reasons behind what they believe, will just continue automatically. In fact, the motivations (often generated by crisis) are unknown to following

generations, and they may receive very poor education in these areas. The result is a common cyclic variation in all societies with regard to both ethics and orientation.

The greatest challenge for the human race is to effectively pass on what the entire race learns and knows to those who follow, so they are not forced to repeat past mistakes endlessly into the future. Religions have tried to form that long-term ethical and historical bridge in society, but for the most part, they have unfortunately become very defensive, sectarian and self-absorbed in our century, to the greater detriment of everyone.

This is a tremendous challenge for society, especially after advancement through some shared adversity, as it's children start life completely unaware of this, and have to learn every aspect of their culture from the beginning. Cultures seem to imagine this happens by magic or casual contact, but it is a serious task requiring the full attention of the best minds in every society to accomplish. It is the deep understanding of history, more than any other area that helps to convey what has been learned to the next generation.

I believe that every individual, culture and religion understands a part of the global puzzle, and that their different focus and viewpoint is what allows them to understand that portion. If we hope to ever have any real understanding of our world and beyond it, ***it requires the fusion of all that insight, not its sectarian exclusion.*** What we can create together is far more powerful than what we create in opposition or exclusion.

● 15

No matter what you believe,
you always find some people on your side
that you wish were on the other side.

Jascha Heifetz

Growth for the sake of growth
is the ideology of the cancer cell.

Edward Abbey

War would end if the dead could return.

Stanley Baldwin

Crime is contagious.
If the government becomes a lawbreaker,
it breeds contempt for the law.

Justice Louis D. Brandeis

You may either win your peace or buy it:
win it, by resistance to evil;
buy it by compromise with evil.

John Ruskin

The saddest aspect of life right now
is that science gathers knowledge
faster than society gathers wisdom.

Isaac Asimov



Things are really different today, you are not dreaming

In casual discussion, people often comment that things (and certainly other people) are somehow different than they were in their own childhood. A famous quotation or two is then quickly dredged up to show that this was just as heartfelt an attitude back at the height of the Roman empire, the turn of the century or in ancient Greece, as if this constitutes a

compelling and analytical rebuttal. ***The fact of the matter is we and things are both changing, and at a hellacious rate.***

Some changes today are technology driven, some are shifts in world attitudes and ethics. But there is no question that we are not the world of only a few years ago. The first big change is that we are now ***exposed to the entire world*** and its events on an unprecedented level. TV, radio, video and print have become so pervasive that an idea or event in one city or country is soon globalized, whether appropriate or not. The exports of US and Islamic cultures in particular have been extraordinary, fueled by the powerful impact of the entertainment industry in all its forms, and religious imperatives. Other countries are joining this battle for ascendant culture, and it is quite uncertain what the final result may be, but the results don't look that promising for the highest quality model to rise to the top.

The world has become much smaller, the pace of change much faster, and the ***erosion of traditions*** in every area commonplace. Social structures, patterns and organizations of long standing are being ***swept away in a newer, shallower culture in which nothing has much real importance, and where ethical values have become arbitrary and transient, just like our new money.*** We have come to the point where we worship and value the trivial and insignificant in almost every aspect of our lives. There can be no greater danger to human survival.

Western religion in particular has been subjected to a long period of deterioration, with many people now indicating no significant religious affiliation both in North America and Europe. Divorce is now commonplace, with the majority of new marriages now ending in divorce both in Canada and the USA. The impact on the children and partners from these marriages is often devastating. Abortion on demand, while remaining a contentious issue, is now a reality throughout North America. The same people who express outrage at the killing of whales or infringing on owl habitats, seem less concerned about the killing of unborn

babies for personal convenience, which seems quite a bizarre ethical position, to say the least.

Many diseases are now at levels unknown in previous history, including cancer, Alzheimer's, obesity, nervous disorders, heart disease and HIV/AIDS. Of special concern is the emergence of TB in highly drug-resistant form, and the spread of STDs (sexually transmitted diseases) and drug resistant Hepatitis. People live lives of constant stress and desperation, and rarely feel at peace or secure. Crime is at explosive levels in many urban areas that clearly underlines how weak our ethical culture has become, and many people fear something in their daily lives. The constant barrage of negative news and fear-mongering in the media has created an elevated state of fear and unrest in everyone.

One change that has crept slowly into our society is the belief (quite incorrect) that we can defeat disease with drugs. This has translated into increasingly careless lifestyles, because we assume that the technology is in place to cure whatever happens, from a fractured leg to hepatitis. In reality, our extensive use of antibiotics and anti-viral drugs has resulted in the evolution of many strains of highly and in some cases, completely drug resistant strains of diseases, including hepatitis, salmonella, tuberculosis, influenza, herpes, yellow fever, dengue fever, and gonorrhea.

Many old diseases are re-appearing, especially tuberculosis (TB), due to the increasing impact poverty and homelessness is playing on the welfare of citizens. This is the key in a chain of events that will have staggering repercussion in the next few years, as social programs and medical treatment are further curtailed, and these diseases return in serious numbers, but now without an effective treatment of any kind. Laurie Garrett's two outstanding books, "The Coming Plague" and "Betrayal of Trust" are highly recommended for an understanding of this interlocking set of problems.

People easily forget that we all live together on Earth, whether we are deeply in love with our neighbors or not. The easy movement of people, goods and food is insuring that what occurs in one place, soon appears everywhere else. Disease will be the unexpected guest that we will see in our close future if we are not very careful about our social policies and trade-offs.

Already, the social behavior of mankind is highly anti-survival in almost every way. As Michael Crichton correctly observed via his characters in his book “The Lost World”, it is **behavior** that is the likely cause of extinction, not external events. The events are merely the trigger, the **response** is the all important issue.

We are paying a bitter price for a long series of mistakes that have placed our future in the hands of the disinterested. By **abdicated our own personal responsibility**, we have given up our futures to chance and greed. To reverse these trends requires a commitment on a personal level to do those things you feel are truly important, and to act in ways that you believe to be right. While the Earth may well survive our neglect, **we certainly will not**. If we fail to act responsibly, our window of opportunity may pass forever, and we will be just another interesting but irrelevant footnote in world history like the blue-fluted trilobite.

Cycles for change have usually been linked to **generational turn-over** in the past, which meant that approximately 20 years was needed for significant social re-organization. If the change was deep, such as a change in civil rights, racial equality, or religion, then a full turn-over of generations (3 generations, or 60 years) is needed so that all those with direct memory of the previous event or situation are gone. Many economists have noted that 60 year cycles seem to occur in general economic health, and feel they may be related to the loss of direct memory of the causes and impact of such serious problems. This is very likely, as those who do not experience situations like war, depression, famine, or disaster seem to treat them in a dangerously casual way. These misconceptions are further fueled today by a very violent trend in the entertainment industry in everything from games to movies.

While generational cycles remain with us, we have failed to notice that these periods have now elapsed in some critical areas, and we have generations alive now who have *very different ethical and personal values and perspectives* than ever existed before. They are passing along that altered perception of critical issues to their peers and children, often with very strong *external reinforcement* through powerful, manipulative advertising and entertainment on a level that has also never existed before. On a behavioral level, we are starting to compress what took three generations into less than a single generation, and on a technical level, we are riding an exponential curve of change.

It is very instructive to understand that today, people can literally experience the lives and situations of others in an immediate, vivid and realistic way through film & video. If these lives are fictional, they become real, and even if their message is dangerous and foolish, *it still propagates through our culture*. This is far different from the experiences of past generations. Then, many didn't travel widely, read little, and saw only a few key pieces of entertainment in their entire lives. This has all changed, and we now have the full surround-sound reality of our choice, on demand, from an incredible variety of sources. This change is so extraordinary, it is hard for us to really understand, since we have some difficulty accurately remembering the nature of previous years.

Because we find our real lives uninteresting or unsatisfying, this new artificial or virtual world has enormous appeal, and takes away some of the energy that would normally be expended to correct what we don't like around us. For too many, escape has become far preferable to action, and for many people the lines between the real and the unreal are becoming badly blurred and indistinct.

Many of the things that are worst about our current situation have come from our view and exercise of both business and government. We have come to be quite indifferent to everything

that *does not benefit us personally*, somewhat cavalier about the world in general, and have little concern for the *lives and welfare of those around us. We are far too focused on entitlement, not at all on responsibility.* If we do not alter our priorities soon, learn what is important, and then start acting appropriately, we will find our lives to be increasingly unhappy, and filled with both fear and suffering.

There is always something *you can do* to improve the situation, never forget that. You are not an uninvolved random victim, you are always a *player* in what is taking place. And as everyone eventually learns, *there is no escape* anyway, so you might as well get to work on the solutions.

What we do, or fail to do, is shaping the world every day. If we do not do those things that will improve our mutual existence, then exactly *who* is to do them, and why should they, if *we do not? Just as in everyday business life, leading by example is the only way to accomplish what needs to get done on a larger scale.*

One fascinating sidebar is that if some cataclysm were to strike the Earth, virtually NOTHING would remain of our “advanced culture” for later generations to ponder. Our buildings today are of poor construction quality and have very short life spans, and our culture is recorded in ways that have almost no permanence and could not be reconstructed by future historians. Our culture could be largely swept away without a significant trace, other than some non-biodegradable plastic trash, and the odd anomalous left-over from previous years like Mount Rushmore and the occasional mountain tunnel. We are a lot less durable and significant than we like to think.

● 16

I do not believe in the collective wisdom
of individual ignorance.

Thomas Carlyle

Nor is the people's judgment always true;
The most may err as grossly as the few.

John Dryden

No man is good enough to govern another man
without that other's consent.

Abraham Lincoln

No single snowflake ever feels responsible
for the avalanche.

Stanislaw Jerzy Lec

It is dangerous to be right
in matters on which the established authorities
are wrong.

Voltaire

The best argument against democracy
is a five-minute conversation with the average voter.

Winston Churchill

Everybody wants to eat at the government's table,
but nobody wants to do the dishes.

Werner Finck



There just aren't any democracies

We have certainly heard the phrase “western democracies” often enough in our lives, or the allusion to the fact that the US or some other country is a democracy, or that we want some country to improve their government to be *more democratic*. How unfortunate that this is all *nonsense*.

There is no current record of a democratic government anywhere on Earth, and there is some question as to whether there ever were any even in ancient Greece, except at the smallest city-state level. A democracy is a government in which all citizens have an equal, direct vote in those issues that concern them, as well as direct election of any officers they may feel are needed. It is worth pointing out that in a democracy, it is ***no more appealing to be in the minority position*** (which could be as large as 49.9%) than in an abject tyranny.

We of course, ***have republics***, or one sort or another, ***not democracies***. We flatter ourselves that citizens actually decide things, but this is ***not true***. At our best, we elect people we don't really know to decide things largely in secret that may influence us dramatically. The minority on any issue is essentially disenfranchised, and powerless. We do not get to vote on legislation, we do not get to actually create it or modify it, and we do not even vote directly for our chief executive. That we leave that to a largely unknown agency like the electoral college, or a private election within the party that has the statistical plurality. ***Surprise***. Do you have ***any idea*** who the people in the electoral college are? Do you remember voting for ***them***? Do you understand the constituency process that selects and elects members under the parliamentary system? Do you have any idea how many ***un-elected people*** in the various parts of the civil service have sweeping influence over your life on a daily basis?

Why do I mention this? It is always dangerous to ***believe your own propaganda***, and to a large degree, we have all bought into this popular fiction, and are now living with the unhappy results. Government and business must both be ***responsive*** and ***responsible*** to the people they serve, or their purpose is false, and they have simply become self-serving large scale opportunists of one sort or another. The founding fathers of our countries would be appalled to see what we have become, and reading their words out loud seems almost seditious by today's standards.

Democracies are quite unwieldy when they are of any size, so the argument for what we have is that it is always a matter of *administrative convenience*. The real answer is to scale down the size of control so that it becomes more manageable and responsive, and returns direct control of people's futures where it belongs. Government should be big enough to do what is needed on a large scale for the general welfare, but should be small enough not to be a burden, and should *never serve as a replacement for personal responsibility, which we do not teach at all*.

The 2000 presidential election in the USA was especially instructive in how our reality and our "democracy" are out of synchronization. The candidate with the most popular votes LOST (Al Gore), and the election was decided by the electoral college in favor of George W. Bush after the most bizarre month-long performance by the courts and those tasked with collecting citizen's votes.

It was especially fascinating to learn that there are routinely thousands of bad ballots in every election precinct, and that no real effort has been expended to improve this situation, even though the evidence is staggering that the process is badly in need of repair. More frightening are the repeated demonstrations of how easily voting machines can be altered to falsify elections with no trace of tampering, and how data at every stage of the over all electronic voting process can be corrupted.

In 2000, a federal election in Canada proceeded much quicker, but effectively disenfranchised the western half of the country with a majority government that *did not get a majority of the popular vote*, an equally bizarre result. We're a lot quicker at counting, but don't produce any better results when the dust clears.

2003 and 2004 have shown an alarming trend towards computerized voting, but those systems have also been repeatedly shown to be vulnerable in both theory and practice. Absentee

voters, and those using faulty machines seem especially vulnerable. ***I believe that non-auditable electronic voting technology will in fact allow the corruption and takeover of any nation's government that adopts it. It is an inevitable outcome. Ongoing evidence is already pointing to widespread tampering and fraud with electronic balloting and data transfer, and we ignore this at our most extreme peril.***

Again, be very careful not to mistake our daily reality for the full-color advertising brochure.

● 17

You miss 100% of the shots you never take.

Wayne Gretzky

You can see a lot by observing.

Yogi Berra

Logic is useful for proof,
but almost never for discoveries.

Vilfredo Pareto

Men have become the tools of their tools.

Henry David Thoreau



Genuinely useful tools

- **Learn to appreciate the full nature of things:**

One of the simplest and most useful tools that you will need to really use this material or to analyze any business activities is the realization that things are not ***just or only*** yes or no, good or bad, liberal or conservative. Over time, western philosophical thought has tended to become somewhat dogmatic and simplistic in its analysis and valuation of real world events, and ideas tend to be characterized and identified with a certain air of ***exclusivity***.

This is a great handicap in understanding how things work in practice, as all events have ***many aspects***, and are seen ***very differently*** by those with different perspectives, background or orientation. Failure to see these other views, as well as not understanding the complexity of situations, are critical stumbling blocks for many people in business. It makes them blind to upcoming changes and impending problems, and gives a very

incomplete and biased view of what is going on around them. ***It is accurate to say that if you cannot argue the opposing view well, then you don't really understand what is going on at all.*** You should learn to see things as both your customers and competitors see them.

For example, to my kids and their friends, I am ***old***. To my peers (since they are also in denial of their impending age), I am middle aged, or younger. To some of the people I meet in their seventies, I am a ***kid***, at only 60.

A second problem that arises from this regrettably narrow vision is the immediate ***labeling*** of many statements as hypocritical, contradictory or indecisive, when in fact they may be ***none*** of these things. It is usually a sign of an obsessively logical analysis for these kinds of low-information-content labels to appear, and makes it very difficult to see what is ***really being said*** as a result. It is always helpful to remember that things are both simpler and more complex than they appear at first glance.

Names or categories are not an acceptable substitute for understanding.

Labor relations is one area where this appreciation of other viewpoints is clearly essential, but it is hardly the only one. Every phase of design, production, purchasing and planning also needs this expanded perspective to develop deep understanding of the processes that are at work, and ***how they are perceived by others.***

It is an unfortunate trend in education that we are vitally concerned with the names of things, but usually ignore how and why they function. This produces only a very cursory analysis of events and situations, and while it may permit easy marking of term papers or tests, it seldom triggers any understanding of the events involved. Worst of all, we often resort to quick and ill-considered labeling of actions or people as reactionary, conservative, revolutionary, undemocratic, socialist, right-wing,

left-wing, fascist, liberal, redneck, federalist, or some other category as if that implied any level of understanding on our part.

Understanding the *multiple nature of things* is a critical step in education and understanding, but we seem to look for THE single label for something as if this had special cosmic significance. People have good and bad aspects, ideas can be both simple and complex, and something can easily be both expensive and cheap. The issue is never the labels, only the understanding that lies beneath them.

Learn not to let names substitute for understanding, especially where people are involved. Try and sample the situation from every perspective, and try and knock down your own arguments and positions, you will learn some fascinating and useful things when you do.

Decide promptly, but never give any reasons.
Your decisions may be right,
but your reasons are sure to be wrong.
Lord Mansfield

Striving to better, oft we mar what's well.
Albany, King Lear
William Shakespeare

It is by insisting on an impossible standard of perfection
that the skeptic makes himself secure.
A. J. Ayer

Experience is the name everyone gives to their mistakes.
Oscar Wilde

A man should never be ashamed to own
he has been in the wrong,
which is but saying, in other words,
that he is wiser today than he was yesterday.
Jonathan Swift

Example is leadership.
Albert Schweitzer



- **Learn when a decision is good enough & when to make it:**

Another important tool is the realization that *not every situation requires a perfect answer or decision* (assuming that there even *is* such a thing). In business, it is particularly critical not to become vapor-locked in an endless loop of indecision over what may be truly irrelevant decisions or unimportant considerations. You are going to *make mistakes* no matter *how carefully* you examine the information you have. You often will not have enough data to make a truly informed decision, ongoing

circumstances will modify the required response, you may not be *clever enough* to see the right answer, or your data itself may be incorrect, preventing the right decision.

Make the *best decision you can*, and don't be too stubborn *to change* it if you see it was the wrong one. This is not indecisive, this is *smart*. *Do not live your business or personal life for the irrelevant approval of others or in the quest for the perfect document.*

There is a popular corporate strategy that usually occurs in larger businesses or group discussions in smaller ones, practiced by those who see themselves as “up-and-comers” to endlessly analyze and “what-if” every scenario imaginable. In reality, this is usually protective camouflage to involve many in the decision if it goes bad, but permit the taking of credit if all goes well, while allowing considerable posturing and ego-pandering during all the by-play. It is not always easy distinguish this from intelligent analysis of upset event implications, but the clue is usually when important issues go begging for decisions, causing *real*, and not imagined problems.

Within any corporation, there are always points where *decisions must be made*, and responsibility exercised. Do *not* avoid this, or be afraid of it. Study the situation, make your best analysis, understanding that you and *you alone* may be held responsible for the outcome, and then *act*. Be right, but if you are *wrong*, be mature enough to correct the mistake, and *take full responsibility for it*. There is no substitute for this behavior, and no company can function without it, so be certain you appreciate its true importance. This is the one *absolutely essential and irreplaceable skill* of any executive.

Failing to make a needed decision kills many businesses, and usually gets covered in excuses and justifications after the moment for useful action has passed.

Just as in your personal life, or the world at large, do not forget that the natural flow of events is ***always towards disorder and disorganization***. It's the manifestation of an important concept known as ***entropy***. If you are hoping for a bright future, then you must ***act*** to create it, as other events may naturally lead away from it.

Your decision may be to do nothing, but realize that you still need to make that decision, and then watch the results to see if it needs correction later.

A president cannot always be popular.
Harry S. Truman

The distinguishing sign of slavery
is to have a price, and to be bought for it.
John Ruskin

The hottest places in hell are reserved for those
who in times of great moral crisis
maintained their neutrality.
Dante

A man who stands for nothing
will fall for anything.
W.A.C. Bennett

Fraud & falsehood dread examination.
Truth invites it.
Thomas Cooper

Principles have no real force except when one is well-fed.
Mark Twain

An evil life is a kind of death.
Ovid

Goodwill towards all is true religion
Bhuddacarita



- **There is no escape from principles:**

Understand that some things must be done *on principle*, and that you either *stand for* those principles, or *you deny them*. This is one of the oldest moral struggles of the human race, and it is often avoided in business by those who think to escape from the consequences of it through the imagined anonymity of business.

There is *certainly right and wrong*, and while I am unquestionably not the ideal person to instruct in this area, they remain with us nonetheless. Businesses often engage in behavior that is morally repugnant, produce flawed or dangerous goods, deceive and abuse others, and commit a wide variety of inarguably criminal acts. That it might be somehow rationalized away as “good business” in some idiot’s mind is both a shameful attempt to disguise the true nature of the situation, and a *totally false representation of what constitutes acceptable business practice*.

Customers and employees and everyone else will judge you and your firm on the total sum of your behavior, including the ethical standards and principles that appear in your actions. It is not possible to isolate these issues, and you must always understand that.

The film “The Corporation” does a very good job of clarifying the strange and somewhat psychotic nature of corporations under current law. Modern corporations attempt to avoid responsibility at every turn, while maximizing profits regardless of who or what is damaged in the process, and may even be legally bound to do so. The legal realities of corporate structure maximize short term planning and thinking, and show a sweeping indifference for consequences. This blunder did not occur by accident, but we seem unable to correct it even under the fiercest pressures.

After the Second World War, people all over the world were shocked and outraged to hear war criminals respond to serious accusations with the self-serving statement: “I was just following orders...” Many people hide behind this same pathetic argument today in their businesses, believing that they are somehow exonerated from responsibility by uttering this magic phrase. It proved an insufficient and pathetic defense in the late 1940’s, and it has not improved in any detectable way with age.

The state of current ethical standards is not high, whether speaking of business, government or clergy. But it is wise to

remember that it *will not always be so*, and there is a sense of essential balance to the world that re-asserts itself even after the worst of times. If you fear exposure, then you are certainly right to be afraid.

Every day, we make decisions that have impact on many others, and shape our future. *If those acts are not responsible, then we will surely get the future we deserve, but it will not be the one that we hoped for.*

Many people see government, family or religion as forces for social change, but ignore business, since it is usually something *about business* that they might choose to change first. As it turns out, business is actually both the quickest and most profound agency for this type of change because of its immediate and all-pervasive impact on the lives of employees and customers alike.

It is also worthwhile to note that *only business generates any capital* to fund these societal changes. *All money* in society flows from the activity of business, and governments in particular are especially inept at true capital creation.

In life, it is not major events like global warming, war in the Balkans or fluctuations in gold reserves that really have deep impact on our lives, it is the small events on a personal scale that cut the deepest. Worrying about whether the baby-sitter will show up or not so that you can go to work. The pressure from your boss about the low sales this month, and wondering if you will ever get a raise so that you can finally start making ends meet. Being upset over the fact that your car was broken into last night while you were working late. Wondering if he or she will ever call you. These things shape our lives and behavior, and need to get attention just as much as diet or exercise to keep us healthy.

People *often define themselves in terms of their work*, whether as a conscious act or an involuntary one. Almost the first thing that you may ask in a conversation with someone you have just

met is: "so, what do *you* do?", after just explaining that you are the marketing representative for a major international firm. There is no escape from this, as we all react to each other in terms of our relative functions, and depending on the quality of our personal enlightenment, we may also read some level of social stratification into the work that others do relative to ourselves.

Businesses and their activities shape a great deal of our lives, and that is a *responsibility that cannot be forgotten*. For almost everyone, whether their lives are happy or not, enjoyable or not, satisfying or not has its roots in *what they do*. There is no real progress in any civilization until this is clearly understood and taken into account.

Remember, it is not all about money. At the end of every day, we are swept up in the influence of many things *we value and need far more than money*, and it is those *deeper values* that sustain and breathe life into all human culture the world over. Family, love, courage, honesty, character, romance, honor, tenderness, friendship, happiness, compassion and faithfulness. None of these could ever be bought, but many are sold for the wrong reasons all too often. Once again, never lose sight of what is truly important in life, and learn to recognize what is only temporary and transient.

● 18

One, with God, is always a majority,
but many a martyr has been burned at the stake
while the votes were being counted.

Thomas B. Reed

The fundamental article of my political creed
is that despotism, or unlimited sovereignty,
or absolute power, is the same in a majority
of a popular assembly, an aristocratical council,
an oligarchical junto, and a single emperor.

John Adams

Letter to Thomas Jefferson [November 13, 1815]

If by the mere force of numbers a majority
should deprive a minority of any clearly written
constitutional right, it might, in a moral point of view,
justify revolution—certainly would
if such a right were a vital one.

Abraham Lincoln

First Inaugural Address [March 4, 1861]

The belief in a supernatural source of evil is not necessary;
men alone are quite capable of every wickedness.

Joseph Conrad

Men never do evil so completely and cheerfully
as when they do it from religious conviction.

Blaise Pascal



Human inertia & moments of non-brilliance

Perhaps the most incredible aspect of human society is that any economic, religious or political system, *no matter how defective or repressive*, no matter how irrational or dysfunctional, *seems to work for at least a short period*. In some cases, this defective system can become very large and achieve considerable credibility, such as the

Communist or Fascist empires of recent vintage, or merely represent a poorly run warehouse system or Ponzi pyramid sales scheme.

Human system inertia is immense, and is a factor all too often ignored when evaluating social situations of any kind. ***People as a group resist change unless it is seen to be inevitable or it can be made to occur very quickly***, and then are reluctant to change again, even if the new system is dangerous and actively working against their personal interests. This was well understood by various proponents of the “big lie” concept in government, who were able by means of sudden ***de facto*** change and the resulting reluctance to change again, able to commit appalling acts with the happy complicity of their populations.

As an additional problem, people frankly do not often exhibit great intellectual prowess in their larger social activities, making the scope of this problem far worse than it needs to be. It is often difficult to appreciate the extraordinary scope of this issue, but a few examples will illustrate the power of social inertia:

- The gradual acceptance of ever more violent and irrational behavior of Fascist politicians in Germany during the 1930's and 40's. This eventually cost the lives of ***millions of its own citizens***, as well as ***millions of others*** and plunged the world into war for years. This pattern was repeated again in the Soviet Union, with a marginally different political slant, (I view all dominating governments as essentially the same, they flatter themselves that there is really a profound difference) but with much the same result, nearly plunging the world into nuclear disaster in the 1960's and 70's.
- The failure to act on widespread Savings and Loan irregularities in the USA for years until the entire industry faced total collapse. The eventual cost to society was ***500 hundred billion dollars***, resulting in a devastating tax burden, and ruining the lives of many elderly citizens who lost their life savings.

- The bizarre attitude that AIDS would somehow infect only homosexuals, as if viruses had molecular level sexual proclivities. This delayed for years any serious investigation of the disease ***until it reached epidemic proportions and migrated into the entire world population.*** Today, this disease is in ***every population group,*** and every country including the former Soviet Union. It is already beginning to show serious mutation, into at least six strains, most resistant to even the barely effective drugs already discovered.
- For years, education in North America has focused on quantity of production rather than quality of performance. In many areas, the classroom situation is reduced to almost a disciplinary or baby-sitting function, and this results in ***ever less qualified people*** teaching new students who in turn then teach others. If 50% has become the "passing" mark for study, then the results of 50% qualified people teaching leads to a ***dizzying reduction in competence*** in only a few years. The most perfect illustration of this total educational collapse came in mid-1994 when it was proposed that 100 additional points be added to all SAT (Scholastic Aptitude Test) exam scores, since they had dropped so low. What an ***elegant*** and simple solution.

Just as human society on a large scale often shows a lack of brilliance, this effect also materializes for individuals or companies on a smaller scale regularly. When evaluating business decisions and strategy, ***it is unwise to ignore plain human stupidity, pride or greed as a powerful motivating force.*** This is particularly critical when evaluating the potential or real reactions of others or you. It is not uncommon for people to act ***against their own best interest*** for simple reasons such as pride, spite, stubbornness, foolishness, arrogance and guilt. Often very large business decisions turn on these basic motives, and ***no greater ones.***

An equally important insight into human behavior is to recognize that mental illness is a **highly contagious** disease, and is easily propagated through large populations like the flu. This includes panic, anxiety, guilt, fear and terror, as well as various kinds of schizoid group behavior. It's propagation is based on the gradual **acceptance or rationalization** for some kind of stupid or appalling activity, and once widely accepted and translated into action, it becomes very difficult to dislodge, due to the deeply felt feelings of guilt, responsibility and embarrassment.

Once people have accepted the arguments for a particular position and **then acted on them**, no matter how **morally repugnant or demonstrably foolish** they may be, their ability to **then subsequently reject them** drops to almost zero. It becomes a truly impossible moral dilemma for a great many people, because they are not capable of admitting to being wrong on such a large scale.

This is why events like the World War Two holocaust in Europe, and tribal slaughter in Rwanda took place, and what fills the concentration camps and kills starving children trying to get water in Bosnia-Herzegovina. And it is why there are still stone-faced denials in the face of incontrovertible evidence. This is what permitted the assassination of many popular leaders in modern times, and the subsequent acceptance of the idiotic explanations for those murders. This is what led to the 2003 invasion of Iraq, and it's long suffering continuation long after "mission accomplished" was announced. This is also why belief in money has become almost a religion, even though anyone can see that it's just colored paper, and really nothing more.

● 19

Just as there must be balance
in what a community produces,
so there must also be balance
in what the community consumes.

John Kenneth Galbraith

It is not the employer who pays the wages
---he only handles the money.
It is the product that pays the wages.

Henry Ford

In order that people may be happy in their work,
these three things are needed:
They must be fit for it.
They must not do too much of it.
And they must have a sense of success in it.

John Ruskin

He who does not punish evil
Commands it to be done.

Leonardo Da Vinci

The only thing necessary for the triumph of evil
is for good men to do nothing.

Edmund Burke



Interlocking corporate responsibilities

A company has three major interlocking sets of responsibilities that must always be kept in balance in order to survive and prosper. They must have different *emphasis* depending on the circumstances the company faces, but none of them can ever be ignored for long, or left out of any important decision. These three critical areas are:

- **Provide service and goods of value to its customers.**
- **Equitably treat and compensate its employees and community.**
- **Service its corporate fiscal needs.**

There is certainly no magic here, but I am always surprised how little people have even *thought* about the internal functioning of their businesses. When I have spoken to businessmen in SPARK conferences or public service club meetings, or at other professional groups, there are some simplistic views that just keep re-occurring.

When asked, "What is the purpose of a business", the overwhelming majority always quickly answer:

"To make money."

When asked, "Do you like bad service or poor quality?", the overwhelming majority also always answer:

"No."

When then asked to *rate their own company's quality or service*, the answers become very confused, and rarely do the majority give themselves high marks in both of these important categories. Further, these same people have ambivalent feelings about customers, co-workers or employees, and are often ***completely uncertain*** as to how to improve their businesses in the future.

The conflict here is serious: Everyone wants to be treated well and get good value, but when it comes to their own business, the only ***important issue*** is to ***make money***, and to hell with these other foolish, and presumably irrelevant considerations. It is hardly any wonder that so many people are genuinely terrible at running a business as a result.

- **Providing services and goods of value to your customers:**

The fundamental issue of *equity in dealings with customers* is plainly inescapable. Only customers that feel that they have received fair and appropriate value and service will return. More ad money will not correct this. New packaging will not correct this. Internal reorganization or “re-engineering” has no effect, neither does implementation of new laminated wall plaques with company mission statements or snappy slogans.

This is so simple and so powerful a concept that it is both ludicrous and tragic that it is seldom in use by companies wishing to be successful. ***Products must be of suitable quality for the intended use, and priced so that the customer sees them as good value.*** Service and customer support must make the customer ***happy*** in his or her dealings with the company. There is a rather bizarre school of modern business thought that sees these concepts as old-fashioned and unimportant. It is far more appropriate to categorize their thinking as irrelevant & dangerous.

Our economy has been rocked by the shallowest of ideas masquerading as intelligent business practice. Junk bonds, cataclysmic labor confrontation, receiverships and bankruptcies, LBOs, massive debts and staggering restructuring brought about by the consequences of these acts. ***Business is very simple, and is founded on equitable transaction.*** The rest is just intellectual fraud, looking for an eager and gullible audience.

- **Equitably treating and compensating your employees and community:**

On the issue of employee relations, it seems pretty self-evident that people need to be happy in order to work well and with enthusiasm. This is not always an issue of money, by any means. People want some *responsibility to act*, and some *respect and acknowledgment* for their accomplishments. They want an opportunity to do better, do work that is interesting and advance their careers. They also want to be involved in the direction of the company and its decisions, and feel that they have contributed to the company's success. If they truly understand the company's financial and competitive position, they are far more likely to act responsibly than not, given an opportunity to do so.

As I pointed out, virtually any human system seems to work for some period. Many people will point to their particular repressive and fear-motivated operation with pride, and feel that their point is successfully demonstrated beyond question. It is certainly clear by historical record that such systems fail in the end, although they get considerable opportunity to damage many in their agonizingly slow death spiral. People within a company are often the final determining factor in its success, and their treatment and responsibility play a key role to that end.

An interesting illustration of this occurred in 1982 at NAT. We were always very open with our employees about our performance and conditions. During 1982, Canada (and the rest of the world) was racked by a deep and bitter recession, which had, as one result, the loss of many of our customers through business failure and other related financial problems. We had to lay off several employees, and were eventually faced with a very serious choice; fold completely or shrink the size of the company significantly. We worked out a plan with the unemployment office to put most of our staff on a reduced work week, and allow

them to collect unemployment insurance to help offset the substantial loss of income.

The plan meant that everyone would take at least a 20% cut in salary, and I had already stopped drawing a salary entirely, to reduce the drain on the company. The question was how would our staff *react to it*? After we explained our situation and what we had been able to do to solve it, they all elected to stay. We then went through a very rough six months while we tried to develop new export markets and products to offset our domestic market losses. With some new investment capital, through an additional partner, Dennys Moore, we eventually made it and most of those people remained with the company, and are still there today, which is amazing in itself.

Their *efforts* were what made it possible for that new equity to *produce results*. Many companies around us failed, often with much better circumstances and longer histories than we had. But we had one thing they did not: *dedicated people*. It made all the difference, just as it does today for many other companies.

As part of our compensation method, we implemented profit sharing, using a very simple rule that gave the president and the shipper exactly the same amount. We felt that every job was important, and if it wasn't, we would get rid of it. If it was important, then it deserved to be treated that way. *Salary compensates for individual skill and responsibility*. Profit sharing recognizes *team effort and over-all company success*. Both are critically important reinforcement to employees.

We also implemented a strong benefit plan, which while more than other companies, was certainly less than others, too. We put in *what we could afford*, and discussed it widely, looking for the best value for our scarce dollars. We also changed it numerous times, and always made sure everyone knew what we were doing. Our plan was simple, we paid half, and the employee paid half. It was both fair and intrinsically self-regulating. I use the exact same method today in our new companies.

What do people remember from their working past? I remember being well treated by some people, and not so well by others. I remember working for Al Singer & Bill Strull at Air Electro Supply when I was a kid, and was dying to know everything about electronics. They were very patient and generous with all of us that worked there, and Al always treated me fairly and probably *far better* than I deserved. I loved working for him, and still think about him today, more than 40 years later. I have tried to pay him back for that kindness by treating the kids that work for us the same way, so that they will start off their working careers with the same good memories.

I also remember going to work for Innotech Aviation, back in the early 70's and not being paid for the Christmas holiday because I had not been there 30 days yet. The fact that it was a statutory holiday made no difference; this was simply somebody's clever *policy*. I thought about that for a long time, and decided that I would never treat anyone that way if they worked for me. And, as it turned out, I didn't, so perhaps that was the most valuable lesson in retrospect. It is always within the power of executives in any company to affect the lives of those that work for them (I always prefer to say "with").

Over the years, a lot of people visited our plant at NAT, and took away copies of our company manual and the details of how our internal programs worked, particularly our profit sharing plan. I am happy to say that some of those people found our ideas sound enough to copy in their own firms, and had the same good results we did. We were an odd anomaly in Canada, a small "high-tech" company exporting internationally against very strong competition, and making steady progress. We had a lightning quick product cycle, intense drive, and we were hungry for more automation to make us more competitive.

Now, automating usually spells trouble in most firms, because it implies that jobs will be lost in some way. Our staff viewed it this way: they hated the manual work involved, and were very

happy to have it automated, because they *knew we would use them to do something more interesting*. It was this *trust* that made it work well. We had a lot of years tied up in those people, and didn't want to lose them for any reason. We just wanted to make them more productive. Our own staff designed the automation, and actually built some of it. They went off to school to learn the new skills we needed, and came back and *made it happen*. Our competitors were justifiably scared to death of us, which was just what we wanted. Happy staff and worried competitors.

During all of this we studied everyone that felt they had something useful to say about business. We certainly agreed with Waterman & Peters about "walking around", because we could never understand how *anyone* could run a business without looking at all of its various parts every day. We solved a lot of problems just by talking to people all around the company and finding out what they thought needed doing on a regular basis. I always made it my first priority to fix whatever was seen to be a potential problem by our staff, before it turned into a real one.

We also found that one man in particular, W. Edwards Deming, understood not only the importance of quality, but of the underlying work environment and ethical orientation that makes it possible to *achieve* quality. We worked very hard to put his ideas into practice, and I believe that all our business success over the years has come from implementing his profound insight. It is unlikely that today (or any other time, for that matter) any real business success is possible without an understanding and implementation of Deming's principles, and it is a genuine tragedy that his work is not better known and understood in North America.

On the public service front, we routinely brought in students for work-sharing programs and job shadowing at NAT, so that they could see for themselves what a science based job might look like. We also went out to schools to talk to students in their classes, especially to prepare them for the reality of employer

expectations in the workplace. We had a favorite company charity, the local food bank, and both the company and employees contributed to it every year. It always bothered us that there were people in our own town without enough to eat, when it was within our power to help them so easily.

In our new companies after NAT, Meridian Applied Science & Sphere Research Corporation, we did the very same things, and also teamed up with local schools to recycle old computers into classrooms, and provide books, parts and other materials to teachers for their class projects. We have also run an unusual annual program called “Trades for Grades”, where we exchange kid’s good marks for things they want (which we get donated by companies all over Canada). It’s not very much, but we see all the problems at the school level every day, and find that we have to do whatever we can, even if we are only acting in blatant self-defense.

- **Servicing your corporate fiscal needs:**

After having done its part on the community, customer & employee level, a company also has to service its financial obligations with care. This is an area where things go wrong quickly, and where qualitative measurements of attitude and product innovation have to be replaced with quantitative analysis of the best and highest use of the company’s money.

Often, employees do not understand anything about the finances of a company, and so make odd, and often wildly incorrect assumptions about what is happening to the money a company may earn. This unstable condition is made worse when a company does not make any effort to keep employees current or informed about the company, and they are exposed to this information from the outside.

To make matters worse, the term “gross profit” is often bandied about when discussing company activities in a hostile way, and this term is almost meaningless. It refers to the simple subtraction of cost of goods sold from sales. It ignores *everything else*, including salaries, rent, expenses, plant and capital costs. Hardly a useful figure for in depth analysis.

To really understand corporate finance, it is critical to understand what a company does with its money on the most basic level. *Revenues* service two kinds of internal costs or debts, *operating costs* and *capital costs*.

Short term **operating costs** are these:

- **salaries and wages**
- **materials & inventory costs**
- **rent**
- **taxes on business profits**
- **interest on operating loans**
- **expendable equipment & tools**
- **operating expenses (power, telephone, etc.)**
- **advertising**
- **insurance**
- **business licenses**

Once these immediate requirements for money have been satisfied, there still remain long term debts or capital costs that represent large amounts that must be spread over time to make them manageable to pay. Capital costs refer to those assets that are necessary to allow the business to produce revenue.

For a manufacturer, these would be primarily the machinery, equipment and facilities needed to actually produce its products. They could also be a storefront and its improvements and fixtures for a retail operation. These may represent very large dollar amounts, and are enduring in nature, with a long life span. Usually a business must borrow to fund these acquisitions, and these loans may require 5, 10 or 20 years or more to service.

After generating sufficient income to cover all of its operating costs, a business must then also service these capital costs.

Typical **long term** debts or capital costs may include:

- **physical plant & buildings**
- **capital equipment**
- **research & development projects**

It is quite common for a company to have *short term profits*, but be seriously in *long term debt*, an issue that is not always understood in a cursory review of an announcement or from a news clip. It is also important to understand that a large amount of liquid capital (usually about 90 days worth of operating funds) is often critical to have on hand to allow operations to continue, and to finance the mechanics of business transactions such as wages, payables and slow receivables. Many companies have profits, but no ready cash, since the money is locked away in unsold inventory, uncollected receivables and plant & equipment.

In fact, one of the most difficult issues facing a fast growing business is that the more successful it becomes, the worse its cash flow gets. More cash is needed to finance more inventory and labor to meet sales demand, and more liquid cash is then tied up in receivables. For a new company with little history, this makes it quite difficult to convince external funders like banks to increase operating credit to fund this expansion or growth.

Where *exactly* does a company get its money? This is a mystery to many, but simple to explain. The initial start up capital comes from the equity investors or *shareholders* in a company. They raise the money either from previous personal revenues, or by assuming personal debts to *initially fund the company*. This invested money is converted into shares, which are bought from the company, and represent a percentage of ownership in the total assets (and liabilities, don't forget) of the firm. This money is the

equity investment in the company. Shareholders may also **lend** the company additional operating money via **shareholder loans**, especially if banks will not do so during difficult periods. These people may also assume debt on behalf of the company, or guarantee loans with their personal assets, to allow the company to operate. All of these factors represent substantial **risk** on the part of the equity partners, and it is not an uncommon turn of events for them to **lose everything** if the business should fail for some reason.

Banks provide additional operating funds (short term financing) that are in essence, **advances** against billings and ongoing business, and may provide long term loans secured by mortgages or other tangible security for capital items. As the company generates revenues, those funds not needed to service operating or capital costs, **pay back bank loans or provide cash reserves**, can be used to fund more growth, develop new products or repay shareholder loans.

A company **deserves to earn a profit for its activities** where the customer has been well and fairly served, and this is absolutely **essential** if the company is to continue and prosper, as it is clear from the explanation above that there are many unavoidable calls on this money.

Extensive discussions with people in all levels of business and finance show some consistent numbers with regard to the minimum levels of financial functionality of a company. While it is difficult to generalize for all industries and situations, a Gross Profit (remember that largely worthless term?) of at least 20% is required to stay in business for most reseller operations, and 30% is required if any growth or service is to be supported.

On the manufacturing level, Gross Profits of 30-50% are needed to support product development and research, tooling, production and plant updating, and to provide any useful level of subsequent customer support.

Interestingly, after ***all the costs are taken out***, this may result in a ***NET Profit*** of only 3-15%, often little more than passive investment in bonds or savings accounts may make possible. Sometimes this is an enormous amount of business activity to achieve very little net result from a strictly monetary point of view. While this net is achieved on the total volume of a company's business, rather than just the invested capital, it is a sobering reminder that companies often generate ***only a small surplus*** relative to their operation, and it does not take too large a dislocation to quickly erase that. Even if a company generated a 10% net profit, keep in mind that might fund less than a ***single month's*** operations if unexpected trouble develops.

ROI, or ***return on investment*** is a popular current yardstick of economic well-being, and is the ratio of net profit to ***invested capital***. It is worth pointing out that for virtually ***all enterprises*** with significant capital plant and infrastructure, this number is quite dismal initially, as ***time is required*** to justify this type of investment. ROI is a potentially very deceptive measurement, as it will give different answers at different moments in the life cycle of the exact same enterprise, and so should be used with insight, if at all.

●20

By working faithfully eight hours a day,
you may eventually get to be a boss
and work twelve hours a day.

Robert Frost

We are prone to judge success by the index of our salaries
or the size of our automobiles,
rather than by the quality of our service
and relationship to humanity.

Martin Luther King Jr.

Our major obligation is not to mistake slogans for solutions.

Edward R. Morrow

No one can make you feel inferior without your consent.

Eleanor Roosevelt

Criticize behavior, not people.

Paul Rubin

Nothing will work unless you do.

Maya Angelou



Employers & employees

By this point, hopefully we agree that equity is the basis for all *effective and sustainable* political and business transactions. If a decision is seen to be unfair, or a deal unequal, it will simply fester in the mind of the ‘wronged’ party until an opportunity is found to rectify the situation, or punish the offender. This desire for fair treatment is so elemental in human behavior, it is astonishing to me that people continue to ignore it repeatedly, and then manage to show *surprise* when the results are so awful.

Labor relations in particular have suffered from a serious lack of mutual trust, equity and respect. To a large degree, this situation has a very specific root origin in modern economies, which is the dogmatic class structure and industrial mentality exported from England several hundred years ago. Along with it came a reactionary labor position from the same location, often with a somewhat Irish flavor, since they served as the labor pool for those early English firms. This is a turn of history that has influenced many people, but its origin is now largely forgotten. Into the “New World” cultures of supposed equality and evenness of opportunity, we injected a poisonous class mentality and disregard for the welfare of those “below our station”. A most unfortunate turn of events, which we are still paying for today.

A company that has found itself in a confrontational labor versus management situation is almost certainly doomed to perpetual conflict and inefficiency. It is not that there is anything implicitly wrong with unions, or that employees do not deserve fair treatment, or that management sometimes need to make decisions that may not be appreciated by employees. The critical problem is that a company that has *divided itself* in such a serious way simply cannot be very effective because it is perpetually *fighting itself* rather than its competitors.

Stand-out examples of bad labor relations in 1994 and 1995 would have to be the Major League Baseball strike and following National Hockey League lock-out, which would incredibly repeat itself in 2004. These events showcased just how bad, unrealistic and bizarre both labor and management positions can become, with a *total indifference* for the end consumer of the product. The resulting indifference of fans during the next season clearly showed how abused they felt by the entire process.

These problems start because at some point, labor feels it has been treated unfairly, or at least thinks this is so, or management feels costs or other situations have simply become unmanageable. If information about the company's true situation is not forthcoming, the perceived secrecy *always* serves to fuel the

worst suspicions. Often, there is really no factual cause for these situations to start, but because the communication and trust within the company has deteriorated, an imaginary problem can become a real one in short order. *As we have to constantly remind ourselves:*

Where people are concerned, perception is reality.

If an employee feels alienated or abused, he *is so* as far as he or she is concerned. If a customer thinks he was overcharged, or poorly dealt with, *it's so*. There is only one certain method to correct these problems, and that is to communicate well before the problem starts.

Not everyone is suited to be an employee. Many *more people* are unsuitable as employers. Not all business is worth getting, and not every customer is worth pursuing. These are all tough concepts to accept at some time, but a real understanding of them will save endless grief in business, as well in other aspects of life. Another very tough issue for *employees to recognize* is how *difficult it is to be a good manager or employer*, and be directly responsible for the lives of other people on a daily basis, even on a small level.

- **A very key point:**

Good managers that *exercise responsibility well* experience tremendous pressure and *fatigue*, and their work is seldom appreciated by the people they manage, since there is usually no process in place to really express this. This lack of support or appreciation often translates over time into a *reciprocal indifference* from managers in turn, which is very hard to avoid. *Always remember that the knife cuts both ways, and executives that see no response from the people they manage well, usually see no reason to stay and continue that work.* Many employees only realize the benefits of the management they have when it

changes for the worse, at which point it is certainly too late to comment.

Understanding what makes both good employees and good managers is not a trivial task, and it may help you to review what is important in each of these areas, as it may give you some insight into your own situation, or answer questions you may have about ongoing problems.

- **Special versus Systemic, and the Mule analogy:**

I am indebted to Allen Goodhue for sharing his insight with me into company management using the same statistical methodology and procedures Deming used in his general quality analysis. Allen noted that the highest skill needed by a manager is the ability to tell the difference between a systemic and special problem when evaluating employee performance.

It is statistically easy to determine if somebody's performance is abnormal, the real issue then becomes the *cause* of that situation. If it is a system issue, caused by external factors, then *they* need correction, if behavioral or biological, then those *personal areas* need correction. For example, an employee with low output from his assembly station may need better glasses, need to have his equipment repaired or to have his training upgraded, or may simply be un-motivated and disinterested. The critical issue at the management end is to understand *which* is the underlying problem.

Allen also noted in his recent thesis paper that there is an interesting behavioral similarity between mules and both employees and managers. They will all wait patiently for 10 years for the opportunity to kill you (literally or figuratively) if they perceive they have been wronged in some way.

Grudges over issues of improper treatment in the workplace (and elsewhere) can span decades, and lie dormant until the right

opportunity presents itself for the injured party to get the satisfaction they want and feel they deserve.

This is an issue with both personal and corporate focus, and can be very problematic even for new managers with good intentions if there is an uncleared history of bad relations present. Unless these tensions are effectively defused, they remain an armed and unseen trap lurking in the background for the unwary.

You are who you are,
regardless of who you think you are.
Oscar Wilde

Treat employees like partners, and they act like partners.
Fred Allen

Do the hard jobs first.
The easy jobs will take care of themselves.
Dale Carnegie



Not everyone is suited to be an employee:

People who cannot *work well together to achieve a common goal* cannot be effective employees, It's just that simple. They also can't be *employers*. I'm not really sure what that leaves, in real life. Possibly only *hermit farmers*.

Employees must accept the fact that their work is important, and that others in the company, as well as customers *rely on them* to do their part. They have to take *responsibility* for their actions, and perform them in a professional and consistent manner. This means by inference that the company must make it *possible* for them to act in a responsible manner.

Employees must also understand that to achieve their joint goals, they must also *accept direction* as part of their work, and understand that if the direction is fairly given, it should also be willingly accepted.

On a pragmatic level, they also have to realize that their failure to show up, do their work or treat customers well, makes *them completely unnecessary and expendable*. It is important to appreciate that work is *not a right*, it is an *opportunity*. What you make of that opportunity determines most of what happens in your life.

In nature there are neither rewards or punishments;
there are only consequences.

George Iles

I'm a great believer in luck
and I find the harder I work
the more I have of it.

Thomas Jefferson

Managers in all too many American companies
do not achieve the desired results
because nobody makes them do it.

Harold S. Geneen

How you measure the performance of your managers
directly affects the way they act.

Gustave Flaubert



Many more people are unsuited to be employers or managers:

People who cannot work together to achieve a common goal *certainly* cannot be employers or managers. This is a *critical skill* for managers, and they must often overcome deep personal problems in this area, as well as learn to *help other employees* develop and improve this essential skill. In general, if you cannot learn to subordinate your personal desires to the larger welfare of the company, you will not be a very successful employer or manager.

Having trouble in this area is the single largest failure mode of small and large businessmen who enjoy some initial success.

Equally important, if you do not understand *that other people in the world are important*, and also have feelings and desires, then you are also unlikely to be a very successful employer. You are almost certainly destined to have perpetual labor and customer problems, as well. This is a complicated ethical and

psychological area, but is reflective of an individual's general maturity, and is needed as the basis for equitable and even-handed relations at every level of the company.

While every company tends to be an expression (to some degree) of the drive and personality of the influential executives within that company, this trend needs to be tempered with the understanding that others within the company also have similar aspirations. If everyone within the company feels their work is important and worthwhile, and has respect within the company, then these issues can be resolved without serious conflict.

Just as with an employee, an employer or manager must be reliable, professional and consistent. He or she must be able to show by their *own behavior and results*, what is expected by others in the company. Human nature being what it is, people often forget this issue, and begin to treat their work in a cavalier manner once they achieve some degree of business stature or position.

While it is *possible* to rule by edict and not by example in a company, the results are poor, and the long-term trend is always downward. Good employers and managers remain approachable, accessible, and involved in their businesses. Isolated and disinterested behavior from management remains an excellent recipe for failure and bad decision-making.

On a strictly practical nature, doors need to stay open, and managers and employers need to remain visible and accessible to their entire staff as well as to customers. The onus must *not be* on junior staff to have to come "cap in hand" to speak to senior staff, but those with more responsibility must exercise it properly and regularly by making that awkward visit unnecessary. Many difficult situations are quickly resolved in a few moments of casual conversation that otherwise take months to fix in the wrong work environment.

●21

The principal office of history I take to be this:
to prevent virtuous actions from being forgotten,
and that evil words and deeds should fear
an infamous reputation with posterity.

Tacitus (c. 55-c. 120)
Roman historian

History is the unfolding of miscalculation.
Barbara Tuchman

Those who cannot remember the past
are condemned to repeat it.
George Santayana

History will be kind to me for I intend to write it.
Winston Churchill

Nature tends toward equilibrium.
Mel Webster



**History:
They keep making more of it,
but it often looks the same.**

History is like a daily tidal wave. It is unstoppable, irreversible and relentless, and unfortunately for all of us, all too often filled with easily avoided unpleasant repetition. We are all caught up in its inescapable forward pressure, and often find it easy to neglect its past tracks or understand its forward implications. While the past is no sure predictor of the future (endless spreadsheets notwithstanding), it is a vital record of patterns that work and fail, and deserves considerable attention when planning for the future.

Everyone gets the future they deserve, which is quite a sobering thought in itself. Of even more importance is that ***failure to invest or be interested in your future insures that a bleak one is***

almost a certainty. The importance of this cannot be overstated, as it has implications for every aspect of civilization. Remember that Dinosaurs once ruled the Earth for hundreds of millions of years, and were unquestionably the most successful life form to *ever* exist. They suddenly died out for reasons we still don't understand, but which might have been as simple as a small shift in temperature triggered by a chance meteor strike, or as complex as the spread of a reptilian form of HIV.

Entropy is a powerful aspect of nature, the trend toward disorder and simplicity. Civilization is directly at odds with this force, creating *ever more complex and inflexible structures that are increasingly brittle and easily damaged*. We cannot ignore this reality, and must take it into account, or we may find ourselves in an exhibit next to the dinosaurs in some future dolphin museum.

This *rapidly increasing brittleness of society is extremely dangerous*, and is already having serious repercussions. As each aspect of society becomes more irreversibly dependent on other, distant and unrelated processes and supplies, the chance for serious dislocation and fallout from *inevitable random upset events increases rapidly and with increasingly serious consequences*. Every natural disaster we experience shows this problem is increasing in severity.

Modern urban society has such a *high level of system complexity*, that it is now vulnerable to serious dislocation from even *very small* upset events, which may be of no great consequence considered by themselves. The entire New York Stock Exchange was disrupted and shut down in 1994 by something as simple as a flooded basement. CNN reported on August 17, 1994 that *80,000,000* food borne illness cases and 9,000 deaths occur *annually* in North America, simply due to improper food handling, carelessness, and ignorance.

At the very end of 1994, there was a small power failure in small sub-station in southern California. The network connections to this power grid interpreted this local failure as a possible failure

in their own systems, and a seven state interlocking power grid failure soon resulted, spreading all the way into British Columbia in Canada. Similar situations have already occurred in New York state, and almost every other major power consuming area, but we remain unconcerned by the results, and the important system message they contain. ***Complexity is vulnerability.***

This massive power failure pattern repeated itself in the summer of 1996 twice within 60 days, cutting off power through the entire west coast area of the US, plus Idaho, Nevada, Arizona, British Columbia and Alberta, and then to Texas.

Millions of people were seriously affected, and days after the power failure, Utility personnel could not even explain how the event was started, due to the extreme complexity and interdependence of the power distribution network. In 2000, and extending into 2001, California was hit by an acute power shortage caused by the deregulation of the power industry (a poorly thought out strategy), soaring energy and natural gas prices and was prevented from rotating blackouts only by federal intervention (regulation).

The abrupt increases in energy costs, and the upcoming water shortage problems in the southern and western part of the USA have the potential to seriously derail the entire economy, and are not getting the industry or government attention they require. California, the high tech Mecca of the USA, experienced astonishing rotating power black-outs in 2001, the cumulative result of many small foolish decisions that eventually collided in the financial failure of the state's largest power utility, and not enough power to go around. This was a strong warning signal of deep infrastructure problems that went completely unheeded, and is certain to return in more and varied forms as time goes on.

Cities are critically dependent on power, water and an enormous intake of foodstuffs, coupled with the swift removal of garbage and effluent. The complexity of this task is serious, and can quickly translate to tragedy. In the fall of 1994, there was an

astonishing outbreak of *plague* in India, which appeared to have as its root cause simple local sanitary disposal problems. This infection spread to several neighboring cities as panic started among the population, and they moved to other locations after already being infected. It became an *international incident* when it became clear infected or potentially infected people from the area were fleeing by airplane to other countries.

The plague outbreak was short lived, but its subtle lesson lingers on. It would be followed by an incredible outbreak of Ebola Zaire filovirus in early 1995 just outside of Kinshasa. The disease was so virulent, everyone infected was killed before it could propagate outside of Zaire, but its cause and treatment remain unknown. Human society is an *increasingly fragile system*, but we carelessly treat it as if it was bulletproof. Influenza, Yellow Fever, Hepatitis and Tuberculosis are more powerful than any human system, and can bring any nation to a standstill in only a few months. The world has already been devastated by pandemics of plague and influenza in the past, and we have not come so far that they will never revisit us again as a reward for careless behavior.

In 1997, the first public signs of VRE, or Vancomycin-Resistant Enterococci started to appear in the press. This disease is untreatable, and has a 50% mortality rate, making it especially pernicious when it appears and spreads through hospitals. This disease variant, triggered and created by a long process of over-medication, which in turn automatically selected drug resistant bacterial strains, affected hospitals throughout the USA in 1996, causing some wards to shut down. It migrated to hospitals in Canada in early 1997, with the same unpleasant results.

2009 saw the world outbreak of the H1N1 Virus, commonly referred to as “swine flu”. World health authorities became alarmed when the initial outbreak in Mexico seemed to produce significant fatalities, and it was clear humanity had no natural immunity to it. Alarmingly, it spread by airborne contamination, a dangerous development. By mid-year, it had propagated world-

wide, to 10's of thousands of cases, but fatalities remained low, so concern waned, but it is clear even a slight mutation may suddenly alter the landscape when fall flu season re-appears in later years.

In early 1995, *Japan was shaken by a bizarre act of urban terrorism* when Tokyo subway cars were gassed with a nerve gas called Sarin. Eleven people died, and 5,000 were hospitalized. Another smaller gassing event took place in the Yokohama subway station. Since that time, people there have lived in a paranoid state that another similar event would take place (especially traumatic in Japan, where so many must use the commuter trains on a daily basis), and an apocalyptic religious group, Aum Shinri Kyo (responsible for the Sarin gassings), claimed another catastrophic event of greater magnitude than the Kobe quake would strike Tokyo on Saturday, April 15, 1995. Fortunately, nothing took place, but the effects on Tokyo citizens were severe and traumatic, and train traffic diminished substantially, even months later. They have all been made to feel how truly vulnerable modern civilization has become. Japan is no longer a “special place”, magically free from the terrorism and trauma felt in other countries.

The US was rocked in April 1995 by the bizarre terrorist bombing of the Murrah federal government office building in downtown Oklahoma City, with hundreds killed, including most of the children in the daycare center at the bottom of the building. The first thought was that it must have been a reprisal act for the trial of Muslim fundamentalists accused of the previous bombing in New York of the World Trade Center. When investigation seemed to point to a more home grown, right wing, anti-government group, people were shocked in a way that hasn't hit home in the US before. *They were standing on the violent brink of government by the most aggressive*, and finding that the growing collapse of law & order was opening up a dark pit of enormous dimensions.

1996 would bring a massive and still un-solved bombing of US personnel in Riyadh, Saudi Arabia, and the supposed apprehension of the notorious “Unabomber” urban terrorist after an 18-year search. The summer of 1996 also saw the return of sectarian violence in Northern Ireland as the cease-fire collapsed, and a pipe bombing in Centennial Park outside the 1996 Olympics games in Atlanta. It was a series of continual reminders of the fragile, bizarre and increasingly random nature of modern life.

High concentrations of population, and the complexity and fragility of their support, represent *dangerous survival situations*, and make all the affected citizens vulnerable and unsafe for many reasons. We all have our excuses for this societal pattern, even though it may deliver a low quality of life, because it allows the easy creation of artificial wealth and power. We ignore the problems, because until now, we always felt we could afford to do so without any real risk. But history is always unkind to the indifferent and disinterested especially when they have the ability to do better.

Modern citizens are far less able to cope with disruption in their lives than previous generations, because they have so little control over their personal situations, and *because most of their skills and assets have no real survival value*. Now, most people could not feed themselves for a week, or keep themselves warm in winter. In the past, rural agrarian societies could at least feed and clothe themselves even in the worst economic situations.

A highly desirable future pattern for society, now easily made possible by improved technology, is for urban populations to decentralize and reduce their density. This greatly eases a whole host of problems, and has strong positive benefits in terms of mental health, physical health, pollution, crime and quality of life.

If we do not act to reduce the fragility of our social systems, then our problems will increase rapidly, and the quality of life for our citizens will decrease with equal speed. Our social planning

should not move us toward ever increasing urbanization as the inevitable social pattern, *but should disperse and develop smaller communities with higher self-sufficiency as the norm, if for no other reason than to enhance human survival.*

1999 was the year human population passed 6,000,000,000 people, a milestone that came and went with little fanfare. Hidden in that number is widespread human misery despite sophisticated technology, and a reminder that we cannot afford much more inattention to our fragile situation.

Nothing in the world is more dangerous
than sincere ignorance and conscientious stupidity.
Martin Luther King

The greatest danger of bombs is in
the explosion of stupidity that they provoke.
Octave Mirabeau

Chance is perhaps the pseudonym of God
when he does not wish to sign his work.
Anatole France

There is no calamity greater than lavish desires.
There is no greater guilt than discontentment.
And there is no greater disaster than greed.
Lao-tzu

As long as people believe in absurdities,
they will commit atrocities.
Voltaire



History has *powerful friends...*

After the sheer power of history, *human stupidity, avarice* and *random chance* are the most potent forces at work on Earth where human endeavor is concerned. They receive little recognition of their real significance, which only insures their continued strong effect. To study any aspect of human behavior, especially commerce or business, without acknowledgment of their importance is a serious disservice, which we will try not to commit here in this discussion.

Would a rational person fatally poison their air and food, place tens of thousands of nuclear weapons in the hands of paranoid strangers, willfully enter into wars where millions will die and foster the propagation of a disease that they thought through some

voodoo magic could only infect homosexuals? If the answer is no, then the sheer power of human stupidity is quickly exposed, without too much wasted peripheral discussion.

Avarice (the elegant form of greed) drives an astonishing range of human activity, and often lurks just in the background of stupidity, pushing events along. All people have avarice to some degree, and *want something*, even if it is just to be left alone and undisturbed. When it becomes compulsive behavior, and drives irrational action (stupidity is back again), then events begin to unravel. In history, avarice for land (particularly the really nice, certainly *greener*, land someone *else* owns) has driven countless wars, reshaped the internal boundaries of continents, and lies at the bottom of most ongoing conflicts today, including Cyprus, Bosnia-Herzegovina, Northern Ireland, Ethiopia and Somalia. Avarice for power, coupled with land and its resources, drove World War One and Two, the Korean War, Vietnam War, Persian Gulf War and the recent Russian invasion of Chechnya. It would seem we can hardly ignore this issue very easily.

Then there is *random chance*. We already know it led to the creation of Lexan at GE and the defective glue at 3M that became the adhesive in the now ubiquitous Post-It notes. But it also set the happenstance groupings of the team that built the Fat Man nuclear device, and determined the accuracy of the shots that killed President John F. Kennedy.

What if they had *missed*? How different would the world be today? What if Steven Jobs had never known Steve Wozniak, would there be ubiquitous desktop computers today? What if Texas Instruments or Fairchild Semiconductor had never pursued integrated circuits? Vacuum tubes might still be very big business, and Sylvania might be the biggest force in electronics, still pumping out shiny glass 6L6GT's and octal-based 5U4GB's with reckless abandon.

What if you had picked up a copy of Sports Illustrated (particularly the Swimsuit Edition) instead of this really irritating book?

We always like to take *credit* for things. We planned this and that, and *there*, you see, the right result happened. But if you ask people who really know and were *there*, they often will admit that it was the chance meeting of someone, the second look in that petri dish with the strange mold, or a random mixture that sometimes really did the trick. The most powerful lesson that W. Edwards Deming taught about quality is that there is still the random event that *will* creep into even the most perfect system and stop the machine. Some vigilance is required for continued success. While he was speaking about quality, his message was really much wider in scope.

Chance is the subtle and inevitable touch the world injects into all our plans, both for good and for ill.

●23

Nowadays people know the price of everything
and the value of nothing.

Oscar Wilde

Profit in business comes from repeat customers.,
Customers that boast about your project or service,
and that bring friends with them.

W. Edwards Deming



Good & bad customers

When talking about business, it is easy to focus on the *delivery end* of the system, and ignore the *receiver*. In a world of poor businessmen, it is also true that there is also a new tidal wave of *bad customers*. Over the years, just as people in business have forgotten their role, people buying goods and services have come to develop a truly bizarre set of irrational and impossible expectations.

The most unfortunate development in recent years is the feeling that everyone is a helpless “victim” of dark circumstances completely beyond their control. They can’t be expected to know that sticking their face into a lawnmower could harm them, or that smoking might harm their health after 20 years of information on the topic. It also appears that they can’t be expected to pay their bills, bother to read directions, or employ any common sense in any phase of their lives, unless there are explicit and detailed warnings on every possible surface of every product.

They are also prepared to abdicate any sense of responsibility for evaluating any purchase, and want the right to return anything for any reason. In addition, they want the highest of quality and service for every item, but are prepared to pay the cost of only the poorest goods and services. They think it is OK to be rude, abrupt and insulting, but insist on deference and humility from everyone that serves them. After all, they are the customers, and the customer is *always* right.

I have found over time that there is a significant portion of all business that is simply *not worth having*. This is a tough lesson to learn, and one that customers hope *you will never discover*, but it is quite important to understand. Not everyone is a *good customer*, and not every deal is *worth closing*.

Modern consumer attitudes often treat business with suspicion, and assume that the customer is not getting the best deal they could, or the best product. As a result, many customers are *predisposed* to enter into the transaction with a very negative attitude, and confrontational position. This sets the stage for failure, as no performance level is ever likely to be *good enough* or appropriately priced to satisfy those expectations. My long held belief is that this type of business is simply not worth taking, and there has been a lot of personal historical evidence to support that position.

Just as I believe that customers deserve *my* best effort, I also feel that this is a two way transaction, and I am entitled to some reciprocal feeling *from the customer*. I don't do business with people I don't trust, or that I find rude and obnoxious. Life is just too short to go through all of that. This is just what customers themselves do, so it seems completely fair and reasonable to me as a businessman to do likewise.

If I have failed a customer, and they are justifiably upset, I will do whatever is in my power to make it right, and they are *entitled* to that effort. I have put up with a lot from customers when I am at fault, but I also understand the difference between customer

concern and abuse. I am receptive to the first, but lose interest during the second. I didn't advertise that I was *perfect*.

Getting paid. Now *this* is a simple topic. I feel we are entitled to be paid for our work, and it is the just reward for our valuable efforts. I am also indebted to Paul Wulfsberg of Wulfsberg Electronics for pointing out that it just doesn't matter *who the customer is* if they *don't pay*. I am eternally in his debt for that rather keen bit of insight that escapes a lot of people in business.

We have gone through some interesting battles with customers to be paid, and in my mind this is the most fatal mistake any customer makes with any vendor. There have been times when I *couldn't* pay my bills, but I was always on the phone to explain *why* and when we *would* be able to pay, even if the answer was "I don't know". During tough times, that has been a difficult series of calls to make, but it has saved a lot of business relationships, and explains why I am still dealing with some people twenty years later. If a customer called us, and explained their problems, we worked out the best resolution we could. Where everyone was sincere, no damage was done, and frankly, we appreciated the warning.

We are where we sit because of a host of bad social decisions. *Bad treatment* from each side has spawned *bad attitudes*, and now we are smack in the middle of a litigious society that neither recognizes good value and service when it is provided, nor is inclined to give it. Changing that situation will start with you, and with what you do from now on in your everyday behavior.

It is very clear that history shows evidence of this situation reaching far back into civilization, so this is not a new development in human relations. It is only the combination of this issue with a highly combative legal system, and the general reduction of belief in the work ethic, that has elevated this selfish behavioral issue to such serious proportions.

And of course, business obsessed with its own benefit to the detriment of everyone else shares the blame for worsening this incredibly unhappy situation.

Trend is not destiny.

Lewis Mumford

There is hardly anything in the world
that some man cannot make a little worse
and sell a little cheaper.

John Ruskin

People with bad consciences
always fear the judgment of children.

Mary McCarthy



Bad patterns

Business transactions that suffer from a lack of balance or equity are always a problem for the company, regardless of who is favored. Business that is taken at a loss to develop "market share", build contacts, "increase traffic" or similar action is often a serious systemic mistake, as it ***drops the threshold value for the service or goods.*** It often does so irreparably, and may make subsequent business just as unprofitable and undesirable,

no matter who eventually receives it.

It is quite common for this type of activity to result in a permanently depressed market for a product, and may lead to loss of support from resellers, who find it simply ***not worthwhile*** to carry and re-sell. This type of action is very common in retail, and usually precedes a widespread product or market failure or serious devaluation. The only people to currently use this technique with any degree of skill are the Japanese, Koreans and now the Chinese in a big way, and very large domestic technology businesses, which can offset the losses without

external criticism. Their only reason for success: they eventually control the market sufficiently to make the needed increases possible, because the product or vendor alternatives have essentially disappeared.

The opposite extreme of this market behavior is excessive charging for a product or service ***because you can get away with it*** due to (temporary) market circumstances or shortages. This can explode in a variety of patterns, and may come to color the perception of a type of business ***so strongly***, that it cannot shake that stereotype easily. Common examples of this perceived pattern of excess charges, whether justified or not, have become used car sales, gasoline, car repairs, moving services, building contractors and plumbing.

Possibly the hardest open market situation for everyone to deal with intelligently has become the availability of ***truly equivalent***, name brand, high quality goods from simultaneous high and low cost sources. Each has a valid reason for their costs, and each usually provides quite a different sales transaction for the customer.

As part of our mis-directed cultural shift, consumers are driven more and more by price alone, the flip side of the corporate desire for profits, and ***all other issues are disappearing, which will prove catastrophic in the long term for many markets***. The effect of this pattern is to steadily eliminate all service, support, product knowledge, local content, application information, attractive marketing and product display, simply because they add to the cost, which the customer now won't pay.

One of the most mis-guided and bizarre marketing techniques has been to offer customers cash for buying a car. This process has had to escalate each year, as people become inured to the effect of it, and this process reached amounts like \$6,000 per car, plus possibly zero interest financing. In a final demented marketing move, employee discounts were also offered to everyone, insuring not only that no profit would be made on the sale of the

car, but that values for the car itself would plummet. This downward spiral had nowhere left to go, and brought US automakers to the brink of insolvency and then beyond that into bankruptcy, with no benefit whatsoever.

We have worked so hard to convince ourselves that cost is the only issue, that we have settled for dark impersonal warehouses, large companies where no one knows who we are, voice mail, no service and long lines. And we stupidly think this is progress.

The most amazing part of this situation is that when placed back in a more traditional customer/seller environment, with good products and service, customer attention and enjoyable settings, people derive far more pleasure and satisfaction from their purchases and careers, and all parties benefit. The cost is slightly higher, but without the employment and revenue it creates, ***there is no one left to make the purchases in the first place***, which is an unfortunate turn of events for all concerned in the business world.

If you have forgotten the basic appeal of good business, then you might want to visit a bakery or delicatessen when you are hungry, or look in on a dressmaker or cabinetmaker to see what everyday art in commerce is all about.

Unhappiness is best defined as the difference between our talents and our expectations.

Edward de Bono

What is honored in a country will be cultivated there.

Plato

We are deliberately making a world that uses fewer people because we are losing the skills we need to work with other people.

Walter Shawlee 2



So, just what do employers expect?

For many people, a *job* is what marks the dividing line in their life between being considered a child, and being accepted by others as an adult. This is a critical transition for most people, and often the one where they received little or no practical preparation.

Unfortunately, this transition is a bit more complex than just collecting a paycheck.

Understanding the expectations and implied or explicit contract between you and an employer is very important for both of you. The more you understand in advance, the better your chances are of getting and keeping a job that you like, and the happier both you and your employer will be.

It is possible to teach new hires anything, but as with most employment or skill situations, there is a threshold competence level that is unavoidable. This includes language and math skills, essential work habits and a host of other areas not so easily described. It is quite difficult to teach computer use to a person who has never encountered technology at any level, for example,

because the entire vocabulary references and assumed cultural background and familiarity are missing.

Most employers decide on a base set of skills they consider mandatory (often described *incorrectly* by education level rather than skills), and have a second set they see as desirable. Would-be employees are sifted through these two filters by a variety of individuals, and those found to be compliant get further review for positions. This system produces mixed results largely because all parties approach the situation with a real lack of candor and highly polarized agendas, verging on outright deception.

Employees who have walked by a desk that had manuals on it for various computer programs decide to add “familiar with most popular software programs” to their low information content, catch-phrase filled resumes. Employers add fluffy descriptions like “stimulating and rewarding work atmosphere” to boring, poorly lit assembly line positions in employment ads. It’s not a real surprise then, that really finding out a person’s actual skills and even more importantly their desires for work, may be a very difficult task for all parties involved in the hiring process.

I have run several ads for positions where I correctly described the work as consisting of long hours, high stress, modest pay, but sometimes very rewarding or interesting. I got a much more appropriate selection of candidates (and was always able to fill any position), and found it was much simpler to discuss the real work situation with any candidate.

This section is really a *reference section* for students, employees and new hires, and provides a summary of real life issues for their consideration. If you figure that you know everything there is to know about being an employee, then I guess you could reasonably skip over this, although the contents of this chapter often surprise a lot of people.

Some have correctly noted that the style of this chapter is a bit dry, and I have to agree that lists are seldom wildly entertaining. Please keep in mind what its real purpose is, though, and don't be deterred from going on.



Here are some practical things to remember about your working life:

- ***Show up on time, don't be late.*** If you can't come in (and it had better be for a ***good*** reason), call and let them know as soon as possible. This is a business, and being ***responsible for your behavior*** is a very important aspect of your relationship with the people you work with.
- ***Dress neatly, and be clean and well groomed.*** No matter ***what*** the job is, why should ***anyone*** hire a sloppy, disheveled pig that seldom washes? Even people who do rough, dirty work ***have standards***. Your friends at school may think ripped, baggy jeans and shredded shirts are the height of fashion, but unfortunately nobody ***else*** is listening to that great fashion advice.
- ***Pay attention to the direction of the people around you,*** and do not be flippant with experienced people giving you instructions. Frankly, there are thousands more where you came from, and any company can live very well without you, if you make it too easy for them.

- If you are dealing directly with customers, be ***quick, courteous, and accurate***. The company has worked hard to get them to come into the business, and depends on them ***having a good experience with you to have them come back***.
- ***Learn your job***, and everything that affects it. Most jobs require some specialized knowledge, and you are ***worthless*** to your employer without it. Find out what you need to know, from products to safety, and learn it completely and quickly.
- Working with other people means that ***you must treat them as important***, just as you imagine yourself to be. To work effectively as a team, which is the essence of most business, ***you must learn to cooperate with others. Take responsibility for your mistakes*** (we all make them), ***be honest and direct with your co-workers and supervisors***. You will find that other people will gauge their reaction to you by how you treat them. If you lose your credibility with the people around you, you will likely also lose your job.



Here are some things that affect whether or not you even get a *chance* at a job:

- If you have poor language skills, a shallow and inappropriate vocabulary or are unable to carry on a conversation without using the words "like" or "you know" every 10 seconds, you are probably doomed in an interview. If your resume has spelling mistakes, is badly written or generally incomprehensible, you will very likely never even *get* to the interview stage. My

personal favorite in this category is a resume I received once with the word "technician" spelled three different ways on the single page *computer-generated* profile. This takes special ability, but it was not the ability we were looking for.

- If you fail to make a good first impression, you will seldom get a chance to improve it later on. Think about how you will look, act and behave before you apply, and be sure you are showing your best effort. The old cliché that you only get *one chance to make a first impression* is quite true.
- There are almost no jobs available that have as a *requirement*, failure to complete high school, or getting bad grades. We know you are not coming out of there with all the skills you need, and *expect to train you in some areas*, but someone who has so little discipline that they can't even finish high school is just not attractive to *anyone*. You are competing with thousands of new grads each year, as well as competing with existing workers who have lost or want to change their jobs. Always ask yourself, what do *I have to*

offer that makes me the right person for this job? If you can't think of anything, neither will your prospective employer.

- Here's where those grades you got in school actually turn out to be important. Most employers want to see them, and give them some serious weight in making a decision, especially in post-secondary education. We usually look at only the top 10%. Why *should* we look at people who got 30% or more of *everything wrong*? *What job could possibly be done with that skill level*? The most frightening realization is that many jobs *will be done at that level*, and even far below it.



Here are the real life expectations of any job, for *absolutely everyone* in a company:

- Be honest and ethical.
- Be prompt and dependable.
- Do your work cheerfully and with interest.
- Be courteous and respectful to your customers and co-workers.
- Know your job.
- Do your best, even when it's difficult.

Liberty means responsibility. That is why most men dread it.
George Bernard Shaw

There are few sorrows, however poignant,
in which a good income is of no avail.
Logan Pearsall Smith

We all live in suspense from day to day;
in other words, you are the hero of your own story.
Mary McCarthy

In the 'Nike Economy,' there are no standards,
no borders and no rules.
Clearly, the global economy isn't working
for workers in China and Indonesia and Burma
any more than it is for workers here in the United States.
John J. Sweeney



And, what do employees expect?

Not so surprisingly, employers often feel that they are entitled to have rules, expectations and criteria for judging performance, and completely forget that employees have *their own set* to evaluate companies and executives, as well. And perhaps the single greatest expectation and desire of employees is *fairness or equity*.

This is not just on issues of pay equity or workload, but the much deeper issues of respect, acknowledgment, accomplishment and value. Employees are also entitled to, and expect to know about their future, as well as how they are regarded and will be dealt with inside the company.

Where detailed corporate information is readily available, especially if there is an opportunity for employee shareholder participation or profit sharing, the drive and involvement of employees will be strong, and their desire to see the company succeed will be significant. Where they are kept uninformed, and not allowed to participate, their interest and involvement will steadily wane, and their long term concern for the company will be low. Hardly a surprise, except that while most employees *know* this, most managers and employers *do not*.

Frequently the argument is advanced that employees should do some terrible job at poor wages with zero recognition or encouragement because: “This is your job, you are getting paid to do this.” This is so pathetic and stupid I am always in shock when I hear it from supposed adults who have become managers by some horrible accident of fate. The employees have no control over any aspect of the situation, set neither the work, the environment, nor the pay, but are expected to react as if they had specifically negotiated this particular unattractive deal with care and delight.

Until managers are able to put themselves into the positions of their employees, and see what those jobs are like on a daily basis, they would be well advised to refrain from such simpleminded statements & attitudes.

Not every employee wants to, or can become a shareholder, but all of them want respect and fair treatment, and to feel as if their work and lives have value and meaning. Plus, they need to live and support themselves and their families in a way that allows them to concentrate on their work, rather than worrying constantly about whether they can afford to eat or let their children go to a doctor. ***It is a simple and unavoidable fact that for the company to succeed, its employees must also succeed.***

When employees put most of their adult lives into their work, this is a transaction that goes far deeper than just wages, and deserves far more attention than a ledger entry. Where simplistic

management practice has made this an unimportant consideration, long term success is highly unlikely, and the company's competitive position certainly suffers.

Possibly the worst situation for any employee is to be placed under the control of someone that relishes power, and the petty and arbitrary exercise of it. That such an executive should ever be allowed to exist in a company is certainly bad enough, as they will be the worst performers, the most easily derailed by upset events, and the most destructive of staff and relations; but for the employees, this relationship is a ***disaster***. The result of this type of situation is often the loss of good employees, extremely low productivity and enthusiasm, and very high tension. The company's competitors must just love these situations.

In general, few managers have received enough training or have enough human relations skills through their personal experience to produce the best mutual work environment, and this should be an area of ***constant attention*** in any company. The more ***effective*** the relationship between all levels of a company, the better all functions will operate. This is not a requirement for some kind of holistic, new age crystal gazing, but rather an understanding of human psychology and interaction, work flow, quality and mutual responsibility. ***Politeness*** is a far more useful and powerful tool in the smooth running of all companies than most people ever realize.

Every company should remember that work takes a considerable amount of each employee's life, and in exchange, the company should provide good conditions, fair compensation, and recognition for accomplishment. Employers that do this are serious competitors, and strong organizations; those that do not, are transient players and easily hurt and disrupted by internal and external problems.

One of Deming's most important principles is the idea that companies ***"must drive out fear"*** from their internal relationships. Perhaps this is an odd comment from a man

dedicated to product quality, but this may be his deepest insight of all into what environment can produce quality, and what kind simply cannot.

In other words, to get everyone to push the rock forward in the same direction, they have to feel that rock is not going to roll over them at a later date if they speak up.

It is largely the issue of *fear* that makes it difficult to implement deep social, quality or organizational change in a company, even if that company has existing policies that desperately need change. Where there are old feuds, mistrusts and feelings that make useful change impossible, it is most productive to start over, and create a new company to go forward with the needed changes.

The best career advice to give to the young is
"Find out what you like doing best
and get someone to pay you for doing it."

Katharine Whitehorn

Happiness is not a reward –
it is a consequence.
Suffering is not a punishment –
it is a result.

Robert Green Ingersoll



A little employment history...

We have hired a lot of people over the last 30+ years, from students still in school to degreed engineers and financial staff. They have had a tremendous range of skills and personalities, and an equally wide range of appearances.

So, just how did we select them?

To work for us (or to put it another, more correct way, to work *with* us), you have to know your material, and have the drive and talent to contribute something. In addition, we have always looked for *only* the most exceptional people, and usually went through 50 to 100 applicants via resumes and interviews at the highest level of the company before we found someone we thought was right, and suitable to test for our operation.

We need people who have that *extra something* that makes them truly remarkable, the *attitude* that makes it possible for them to

work without constant supervision in our environment, and add something valuable that is uniquely their own.

If they got this far in the initial screening, they still had to pass an interview and a practical test with the department they would work in. Lots of people didn't get this far, and many more didn't get through this cycle. Then we thought about them. If *everyone* was in favor, we hired the candidate on a 90-day trial.

Anywhere during those 90 days, if we didn't care for how things were going, that was the end of the road, and we started looking all over again. After 90 days, we would talk it over, especially if we were unhappy at all with the progress a new hire was making.

If things didn't work out in another month, we started all over again. In every case, we were unwilling to keep someone that was not satisfactory. *Leaving a bad employee in place is very demoralizing and debilitating for good ones.*

Employees are the fuel that makes the company engine work. We sell what they know, and what they make. Customers see the company through their contact with employees, and whether the business does well or poorly depends in large degree on how well that contact goes. Because *who we hire* determines *who we become as a company*, you can understand why every aspect of these decisions is so critically important.

Many of the insights of a saint stem from his experience as a sinner.
Eric Hoffer

Make the most of yourself,
 for that is all there is of you.
Ralph Waldo Emerson



Here's a little something to always keep in mind:

As employers, we can teach you almost *anything*, if you have the basic skills, but we can't and won't change *who you are*. That is what you bring to the company, and is all we have to judge or work with.

Your behavior is also something *you control completely*, and something you need to consider regularly. Many people find no reason to examine who they are, and how they behave, unless *forced to do so* by some serious personal event such as being fired or getting divorced.

Rather than wait for those unpleasant circumstances to take place, it is certainly worthwhile to think objectively about how your behavior affects those around you on a more frequent and regular basis. Only you can change it if there is something wrong in that area, and it will only change when *you have decided* that it must change.

People often are surprised to discover that they perform to other's expectations, rather than what they are really capable of doing. When expectations are modest, so is performance, in

work, education and personal behavior. Our expectations are always very high because we have learned that there is really no limit to what people can accomplish, there are only limits in what they are allowed to do. This is the pivotal lesson people learn when they are forced to assume tremendous responsibility.

We are here to make another world.

W. Edwards Deming

It is easier to fight for one's principles than
to live up to them.

Alfred Adler

Those in power want only to perpetuate it.

William O. Douglas

Facts do not cease to exist because they
are ignored.

Aldous Huxley

The road to affluence is paved with good
inventions.

Charles J.C. Lyall

Concentrated power has always been the
enemy of liberty.

Ronald Reagan



The Conflict between Content and Technology

The most difficult concept to wrestle with, especially in a world now driven by excessive technological change is that from the customer's viewpoint, it is always about the *content*, and *never really about the technology*.

Modern industry is deeply engaged in a battle for the shelf space and mind share of consumers, but unfortunately, over all the wrong issues. From the user's point of view it is never about Windows 7 or XP, or OSX or Linux, it's always about writing the document easily, and sending it to

someone that needs it, or surfing the web with as little difficulty as possible. The specific technology, or the vehicle with which the work is done is secondary, and sometimes, completely irrelevant. Only enough functionality to do the work is the essential requirement, and all too often, “new and improved” technology fails to deliver even that very modest level of performance.

The personal computer industry has been a classic manifestation of endless technical churning, but rarely was any effort put into doing anything better, only larger and faster and newer, and hopefully with some captive intellectual property, so that you can **charge for it**. Whatever was merchandisable and sellable was good, and all other considerations were secondary. It is very hard to believe that the level of hardware and memory now required to do even the simplest computer task is a testament to good engineering, and adequate justification for the relentless increases.

Some years ago, I got a demo diskette for an operating system called QNX. It claimed to small, efficient, graphical and incredibly powerful, and the **single diskette** could run on most machines to give a turnkey installation, complete with fully functional graphical web browsing. This seemed like a pretty wild claim since Windows came on a CD, or huge stack of disks, and there was simply no way this one silly diskette could possibly work, or even figure out my hardware correctly. But, it did. It installed flawlessly, figured out my whole machine, it matched up drivers, activated my modem, and launched a beautiful web browser. It was absolutely breathtaking, and the most impressive software demonstration I have ever seen, even to this day.

They (<http://www.qnx.com/>) went on to become a leading developer of real time embedded systems, but their real message that was ignored by almost everybody was that the entire focus of software development was screaming down the wrong track. It was not necessary to keep cranking up CPU speeds and memory, **it was really necessary to write better software**. Hardly anybody

was listening, except the open source Linux community who really seem to understand *why* they were there, and what they needed to be doing.

Excluding the open source world, software in all its derivative digital forms has now become an unstable and ineffective industry, locked into a mindless chase for the new release, completely indifferent and hostile to customer requirements and skills. Change is inserted just to be able to sell yet another version, and the ripples of incompatibility from those changes destroy the very infrastructure they are meant to serve. Quality and security are addressed only by accident, and the true usefulness of most current software is highly questionable, and rarely if ever driven by customer needs or desires.

Japanese car makers changed the complexion of the world's auto industry completely decades ago, making quality and performance at affordable prices the ultimate standard to beat. The software industry knocked every industry back decades by establishing the worst quality and poorest value on the planet. They foisted the "fix it in the field" and "rush it to market" mentality on the world, along with a host of buggy, insecure and unstable updates. The result is a *user hostile* environment in charge of far too many daily tasks.

As people are quick to forget, it's all about the work, it's never about the tool.

If you are watching a movie, you are indifferent as to whether it is delivered by cable TV, an outdoor antenna, satellite dish, DVD, Blu-Ray, VHS tape or VideoDisk, but you are very concerned with the quality of the movie, and whether it is worth watching at all. A vast amount of industry has come into being obsessed with the subtle differences (and presumably attached profits) in delivering the same identical content, but no one has considered for even a moment if the content itself is even worth delivering or watching in the first place.

Perhaps no technology area stands out as glaringly inept as the cellular phone industry. The content there, the absolutely essential ***must have item***, is a clear and effective conversation between 2 or more people. Telephones have been around for a century, and excellent communication world-wide was achieved with some fairly primitive hardware. Now, with all the technological power at our disposal, we can only deliver garbled and dropped conversations, often unintelligible, and frequently incompatible for your specific phone or provider. Poor and costly cell performance is so rampant, it is now part of the fundamental fabric of modern life, and ***we joke about it***. The dedication and talent of the geniuses at companies like Western Electric and Bell that created the world telephone system have been largely forgotten.

The tragedy here is that we have a costly and patchwork infrastructure, mediocre performance, high costs and a host of irrelevant services ***tacked on top of phone service that is barely functional***. This is the hardware incarnation of the software industry, and a shameful waste of resources and technology that does all things poorly. How poor it really is was illustrated over and over in every possible natural disaster, when loss of power quickly shut down the networks for millions of users. It is a complex and poorly conceived technology that has cost billions to implement over and over in waves of “improved” and incompatible formats or G’s (generations). But of course, it can now deliver songs for a fee direct to the tinny speaker in your phone, so it must be useful, even if you can’t understand what people are saying when they call you.

HD TV is the next techo-boondoggle coming our way, mandated by government policy at the prodding of industry, ***but riddled with 6 incompatible formats and terrible compromises and blatant industry agendas***. Once again, it will be an exercise in trying to re-sell the existing low quality content in a shiny new package. After all, how can one really be happy without the Tonight Show in HDTV?

Of all our societal mistakes, the outpouring of low quality, mindless content, just to fill the ever-expanding technology pipe is the most dangerous. We have stereotyped and cheapened everything, and our appetites are becoming twisted in very unhealthy ways. It is difficult to imagine anyone selling a game for children in 1970 that showed rape and murder, car theft and brutality in endless variations, but today the shelves are stocked to overflowing with them. Movies and TV shows have become a conduit for content that panders to our worst character flaws, and only rarely refreshes, entertains, educates or uplifts anyone.

A culture's diversions reveal its real character, and ours is becoming ever more violent, brutal, shallow and decadent. It is not possible to be immersed in this relentlessly on a daily basis and remain un-affected; it is shaping our reactions, our views of each other, our language, our self-image and our behavior, and none of this is happening in an attractive way.

Is it any wonder other cultural groups on Earth find the West distasteful and even dangerous? We are self-absorbed, materialistic, wasteful and insensitive, and each passing year we need a higher level of stimulation to even capture our interest or attention. We are even dangerous to ourselves, and powerful enough to be a real concern to everyone else. We are not skilled at self-examination except to admire how good we look.

Strangely, as more and more venues open for 24-hour a day, 7-day a week news delivery, the quality and value of news reporting has suffered horribly. While there is tidal wave of “news”, the majority of it is now trivial, denatured, fact-free, opinion laden, mindless content, which fails totally to answer even the most basic requirements of news reporting. In fact, it has become very difficult to learn the truth about any issue, or to uncover any unassailable facts about an event. So much news is slanted, sound-bite packaged, stripped of content and manipulated for background motivations, that the public is almost totally ignorant of basic information on any topic, from the state of the national debt to the process of government or the real weather. There is

never any consideration of the root causes of problems, what is a fact, or how our own hands and decisions may have been a factor.

News reporting was once a real skill, and practiced with dedication and concern. Now, with the passing or retirement of all the main players, it has devolved into a smiling and brainless caricature targeted at key advertiser demographics. The true cost of this focus shift is devastating, as the viewing and listening population becomes ever more ignorant about critical issues, and more easily led to the wrong decisions. This is not an accidental shift, but a calculated one, and we will all pay a terrible price for this in the future. ***It is simply not possible for freedom, happiness, responsibility, ignorance, deceit and stupidity to co-exist successfully in society.***

These cultural mis-cues do not happen by accident, they are the willful decisions of many people, and much too often, the triumph of individual ego, power, greed and technology over content. If you have control over any of these areas in the future, ***be aware of what is really at stake***, and act for the greater good rather than the greater transient profit or personal amusement for once. We are awash in bad system decisions, poorly thought out technology and barely functional infrastructure. ***It is a risk for humanity to be so cavalier about so many things, and to be so indifferent to the quality and functionality of our lives.*** Too many decisions of this type eventually lead to destabilization and collapse, and the fallout from that situation is hard to predict, but it is never pretty.

Critical areas like public health, water and air quality, basic nutrition, education and personal freedom are being seriously compromised on a daily basis in the most callous and cavalier way. Be aware of how dangerous this trend is, and how it is altering the world we live in. There is no reason the pipe can't be filled with high quality, healthy, informative content. There is no valid reason we can't make technology do the task genuinely better and in a truly useful way for the user. We make the wrong decisions out of fear, ignorance and greed, but the problem is that

we simply can't escape the consequences. Our mistakes are collecting around us in an ever-increasing circle of nightmares, and they show no signs of disappearing just to make us happy.

Who has to take responsibility for these decisions? *You do.* Individual responsibility is an inevitable fact of life, and is the single defining aspect of adulthood.

●30

An ignorant people is the blind instrument of its own destruction
Simón Bolívar

Life is hard; it's harder if you're stupid.
John Wayne

Our problems cannot be solved
by the same level of thinking that created them.
Albert Einstein



The Life and Death of Companies

All organizations, from families to companies and countries have a *distinct organic life cycle*. They can exist for very long periods, but they can be easily fragmented and destroyed, sometimes over what appear to outsiders to be small issues and events.

Companies in particular face the extremely difficult *problem of succession*, the transition from first to second and then downstream generations or cycles of control. There is a distinct pattern to the history of many companies, often one of a transition from highly motivated founders to caretaker accountants, and this transition in turn often sets the stage for the eventual dissolution of the firm.

How long does a company survive? Bankers and those counseling new business owners often mention that the two-year threshold is critical, and I have heard many variations of this, sometimes quoting three years. It is certainly true that the infant mortality rate of new firms is very high, and also that the lifespan of a

company has shortened dramatically in the last hundred years, dropping from about 75 to roughly 15 years. This parallels an ongoing social change towards much shorter marriages, and rapidly rising divorce rates, but I do not know if these trends are related.

In his book, “The Illusions of Entrepreneurship”, Scott Shane quotes data from the US Small Business Administration special census survey, which shows that from a generalized mix of companies, *roughly 1/3 will fail within 3 years, and after 10 years, less than 1/3 will still remain, yielding only a 29% survival rate.* At the half way mark (5 years), *half the companies have failed.* The SBA data was very close for different year groupings, but reflect a 1992-2002 physical survey. It is certainly sobering to note that *¼ failed within the first year;* reinforcing the notion that survival of the first few years *is a supercritical problem* for most firms.

The key issue for most new ventures that leads to their end is lack of funding, but a lack of essential skills, unacceptable quality, poor marketing, unwanted product, internal conflict, fundamentally flawed business concepts and general irrelevance to the market place are also very common, and often lead directly to the lack of funds.

The same type of circumstances that bring about a company’s creation, can also lead to its demise, *particularly product and competitive pressure issues.* A company can also find itself after many years to be making products or providing services no longer needed or in high demand such as 8” floppy drives, corset stays, wooden wagon wheels, thatch roofs, blacksmithing services and commercial whaling.

Of particular concern to many firms is their structural inability to fund ongoing operations, or to fund the required changes and tooling to stay competitive and relevant. *Older firms can also become saddled with legacy pension and salary problems,* which cannot be overturned due to union or other agreement issues, and

can be forced into painful bankruptcy. These patterns all collided recently for General Motors and Chrysler in the USA and SAAB In Sweden in a cataclysmic way.

A key element in many large corporate failures is the ***burden of public ownership***. While share sales may seem attractive to fund a new firm, it is critical to understand that those shareholders ***have literally no commitment to the company***, and will divest at a moment's notice. They have one and only one motive to buy shares, and that is to make a profit, and preferably as quickly as possible.

Once treasury shares are sold, the company gets no further benefit from their rising price, but specific people within the company ***do see direct personal benefit***, triggering a wide range of conflicting motives and pressures, none of which serve the company well. Ever-increasing share prices become the operational mantra, when conservation of capital, improvement of product and development, and better contact with customers are really the needs going un-addressed.

While once shares were bought for their earnings in terms of ***regular dividends***, now everyone is searching for the ***quickly rising share prices and the hope of a quick sale with significant capital gains***. No company can realistically achieve this performance on a continuing basis without gutting its own structure and future, so this entire process has become one of short sighted and quick gains followed by serious collapse and losses that wipe out any imagined benefits.

The patterns all being taught as sound business practices today are in fact the institutionalization of piracy, deceit and fraud, and the penalties now showing up in the widespread business failures of the 2008-2010 period for that behavior are clearly exposing that shallow philosophy for what it is, ***dysfunctional and corrupt***.

Companies need to be no larger than actually required to do the work they wish to carry out, and every expansion makes the structure less connected and efficient, and requires ever increasing levels of capital and administration to survive. A firm of roughly 30 people has sufficient depth to work well and with minimal wasteful supervisory staff, this can grow to roughly 150 before the structure becomes unwieldy, and then begs to be divided back to smaller, more efficient units, although they can of course be integrated together in a group.

An association or affiliation of small and effective firms is a formidable structure, able to adapt quickly, and with minimal waste. Bigness for the sake of itself cannot bring many useful benefits to the picture, and sacrifices agility and adaptability for size, which can then prove fatal in the presence of upset events.

Few companies consider their second phase, or the period beyond the original founders. In fact, the most common venture capital plan is to pump up the perceived value of the start-up, and flash some achievements or the imminent promise of them. Then, sell shares to recoup the investment, and run for the hills, with the survivors left to try and continue as best they can, with most of the raised capital now gone, along with the deepest knowledge. This is not a recipe for success except for the very few who may benefit at the expense of others.

A firm with longer intentions needs to raise its own successors internally, and recruit fresh talent along the way to keep its business DNA robust and strong. In this pattern, founders can retire and take a secondary role, providing long term oversight, while well trained and knowledgeable insiders move up to assume operational control. This pattern tends to appear in family dominated businesses, and only rarely appears in public ones.

The more likely evolutionary pattern of a public company that survives is creation, stewardship, and eventually acquisition, which then generally marks its end as an independent entity, and often as any form of enterprise over time.

This turn over is not unwelcome, as not every corporate structure is good enough or useful enough to become a permanent landmark, and not everyone wants to remain in business indefinitely. The economic upheavals triggered in 2008 by sub-prime mortgage problems, and the tidal wave of follow-on derivative disasters that shook 2009 and into 2010, clearly showed the underlying weakness of all firms that were too dependent on debt and imaginary value. Firms too disconnected from the needs and desires of their customers, and too self-absorbed in their internal race for perks and personal benefits have collapsed, which is actually a significant service to us all.

A company that services all three of its cornerstone obligations, its own needs, its employees and community, and its customers, can survive for a very long period, and make the quality of life for everyone it touches improve on a regular basis. It needs to balance the desire for growth with the understanding of the problems that brings, and its ability to fund growth realistically. ***It is not a race***, and there is only the reward of work well done, and the satisfaction that brings to everyone involved. Keeping this thought in the proper perspective can be very valuable as the years pass in any firm.

When a man is wrapped up in himself
he makes a pretty small package.

John Ruskin

Do what you can, with what you have, where you are.

Theodore Roosevelt

If you are afraid of being lonely, don't try to be right.

Jules Renard

Improve constantly and forever every process
for planning, production and service.

W. Edwards Deming



How to make your company better

Here at the end, after discussing all the things we have, it is really appropriate to talk about making your company *better*. If you have noticed any trends while reading, they are possibly that your business needs to be customer oriented, fairly conducted, ethically sound, and always concerned with quality & value. If you think any aspect of what you are doing now *falls short* in those areas, then that's where to start your changes and examination.

Most things that become wrong with a business stem from simple errors of judgment. There is no college course or mail-order program to help you develop good judgment; that requires attention to the issues at hand, experience, success, failure, discussion and insight. You will have to *work hard at these*

issues and study your mistakes, if they don't seem to be improving on their own.

Often, people in management look for the blanket rule or policy, the detailed “one size fits all” solution to every corporate situation, so that they are relieved from having to exercise good judgment as problems arise. This technique also allows them to avoid an intelligent response and the inevitable responsibility for the decision. They can just reply that it is *policy*, from head office, or the way we do things. Like most things that “fit everyone” this type of policy making usually satisfies no one, and may have serious implications for employees and managers alike. Like any other skill, good judgment *needs constant exercise* to stay good.

Our world is torn apart with a host of struggles that originate in greed, selfishness and ignorance, and if you want to escape from these problems, you will find it difficult, but not impossible. You will influence everyone you meet and deal with *by your own behavior*. You can alter how those other people behave *by your own actions; only rarely by just your discussion*. You have important decisions to make in this regard, and *only you* will know how they finally come out in the privacy of your own thoughts. *My advice to you is to stand for something, and to make your firm do likewise.*

People routinely accomplish the impossible in their businesses, because a complementary group of people with common goals and mutual respect are a very powerful and formidable force, and are capable of many things they cannot do or even imagine by themselves. To reach this synergistic level, *other people must become important to you*, and you must learn to be both *responsible* and *responsive* to them. You need to *enjoy & savor* your work, and see it as an important expression of your life. After all, what else do you have to do with your time? You just can't party, golf or sleep forever.

Few people understand how important quality is to all aspects of life. It is not about inspection or accurate instruments, it is the correct and ingenious fulfillment of the *customer's real needs*. If you don't even know *what* they are, you can never reach that goal. As someone put it to me during a business review: "If you don't know where you are going, any road will get you there". If you have no appreciation for what makes quality work in a company, you won't be able to make it work even if you *do know* your customers and their needs.

Deming described the forces that control quality with unique and powerful insight, in that he understood that it is the *complete company environment, from design and costing to customer relations, and its expression in policy, that finally determines the quality*. It is not possible to inspect quality into a fundamentally flawed process, nor will any amount of employee motivation correct marginal incoming materials, or designs that are subject to wide variation and variable results. From management philosophy to purchasing, everyone is an active player in the company's results, but *improvement* is possible only with an understanding of *real causes and responsibilities*. Quality is not an acronym or abbreviation like TQM, it is a social orientation and commitment that permeates every aspect of corporate life.

Deming also described the importance of cooperation and trust with both your vendors and staff, and how that process can be optimized to give steadily improving results with decreasing costs. He understood that it is a process *always in a state of change*, and never finished, never good enough, and always able to improve. If *you* want to understand this, you will have to take the time to study those ideas (try <http://www.deming.org/> to start), and learn to put them into practice.

There is just no shortcut, no instant slogan, and no quick one-minute fix to be had. It has to be *important* deep in your heart and throughout your company, you will all have to *suffer and*

work hard to make it happen, or it will simply be impossible to do.

You are almost done, so think for just a moment about what you have read. **You** are the agent for change in this process, and **you** have the ability to make the world a different place if **you choose to do so**. No one can do it for you, and certainly nobody else is going to take the blame on your behalf if it all goes badly.

Time is quietly and inevitably slipping away for everyone, and some things clearly need to be done better at every level without any more delay. **Learn what is important, make those things part of your own life and behavior, and then help the people around you to do the same.** Consider the unattractive and often fatal alternatives if you don't take these steps, and encourage others to take them with you.

You can also toss this in a corner, turn on the tube, and check out that basketball game. You will have to decide now, because our time together is finally up.