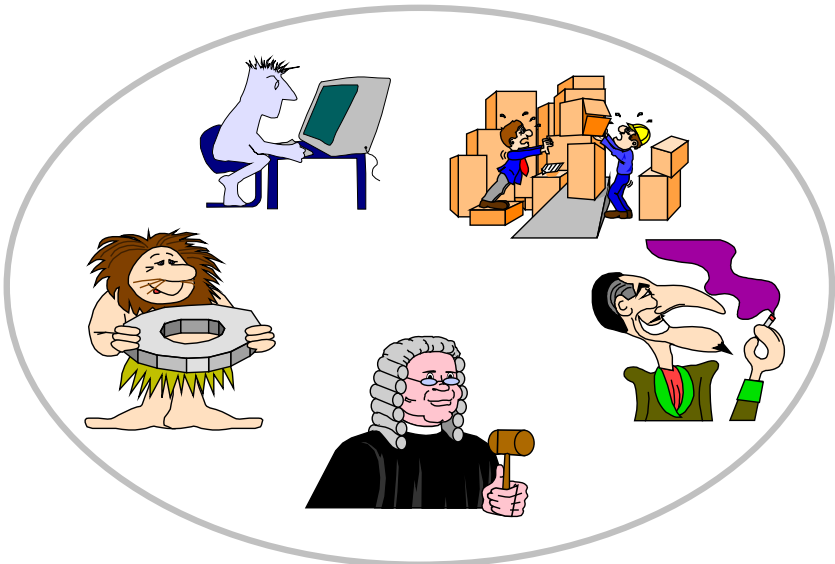


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Tinker, Retailer, Inventor, Attorney, Consultant



In Rogers and Hammerstein's "The King and I", the King of Siam makes an interesting observation about the changing nature of the world and its politics when he says:

*"When I was just a boy, world was better spot
What was so was so and what was not was not
Now I am a man
World have change a lot
Some things are... nearly so
Others... nearly not"*

Of course, the King was verbalising two thoughts that cross the minds of many people during the course of their lives. One is whether things are clearer, when observed from a position of youthful innocence, and the other is whether the world really is becoming more complex. And, as the King rightfully pointed out, the solution "*is a puzzlement*".

If Rogers and Hammerstein's King of Siam had lived in the 20th Century, then he may have been well suited to run a large international consulting firm, for that same question he raised is yet to be resolved. Is the world really black and white, and muddled into shades of grey, by those who derive their income from creating problems and then pretending to solve them? Or, is the world really becoming more complex and in need of more complex solutions that are "*nearly so*" or "*nearly not*"?

The creation of "knowledge-based" societies, in the developed world, has led us to discover that we have an abundance of knowledge-based people, and complex knowledge-based solutions, in search of complex problems to be resolved. This, in itself, creates a new problem because it means that we now need to determine which problems are actually simple problems, made more complex by those seeking to solve them, and which problems are actually complex and are oversimplified by those seeking to earn an income from "snake-oil" remedies. Once we have isolated the complex problems, then we still need to determine which of these can be resolved with simple approaches and which need to be resolved by more complex approaches.

The classic example of searching through a morass of complex solutions to simple problems is the one of the office-building elevator, where passengers continually complained of its slowness in service. The building managers were forced to call in consultants. An electrical engineering

consultant examined the problem and found that it could be resolved by installing larger motors and changing the control system. A mechanical engineering consultant examined the problem and found that it could be resolved by changing the gearing and pulley system on the elevator. However, a psychologist observed that a much more cost-effective solution would be to simply install a mirror, on the wall outside the elevator door, on each floor. The psychologist's solution was adopted and the problem was solved. The point was that the elevator was not slow at all - it was just that those waiting for it were bored and impatient - once mirrors were installed, passengers used the time to groom themselves and forgot how long it took for the elevator to arrive.

The moral of the elevator story (and who can tell how true it is now that it has become a part of building folklore) is that the "knowledge-based" developed world is filled with specialists, each pushing their own agenda. Most problems, however, really require a much broader analysis and, so, in order to arrive at the best solution, one now has to solicit the views of a broad range of specialists. A century ago, most observers would have called this approach "common sense". However, in a knowledge-based world, where common sense is becoming less and less common, the same approach is now referred to as a multidisciplinary or multidimensional approach to problem solving.

Common sense is also becoming an area of specialisation, in its own right, although, in order to make it more attractive, it has been accorded a range of new titles in various professions. For example, in the late 1980s and early 1990s, in the industrial environment, common sense acquired exotic names, such as:

- **Concurrent Engineering** (which could be loosely translated into "*don't design products that are more difficult or expensive to manufacture than they need to be*")
- **Lean Production** (which could be translated into "*spend less money if possible*")
- **Just-in-Time** (which could be translated into "*don't waste time and money making things until you are just about ready to use them*")

- **Total Quality Management** or TQM (which could be translated into "*think about the way you do things*")
- **Value-Added Value Engineering** (which could be translated into "*don't spend money giving the customer anything he doesn't appreciate that he is getting*").

The above examples are particularly interesting because they highlight aspects of common sense that were lost over the decades and were then only rediscovered as areas of specialisation. In reality, of course, the application of common sense to the industrial and business environments is not as obvious or intuitive as one might expect because one often has to deal with a complex web of departments and people that all, seemingly, have some purpose and all, seemingly, interact in some complex manner in order to achieve, what may sometimes appear to be, a simple output. The other problem with simply applying common sense is that it does not necessarily protect one from litigation; business competitors or knowledge-based problem-solvers in search of a problem and an income.

The old saying that "*the devil finds work for idle hands*" is never truer than in developed knowledge-based societies, where an ever-increasing number of *how-to-doers* are in search of areas in which to ply their skills. The most obvious examples are academics, consultants, lawyers, marketing people, etc., that tend to abound in many knowledge-based-developed countries and become a downright nuisance by complicating simple matters and muddying the waters that divide service and overhead. Left unchecked, many *how-to-doers* create their own artificial problems and sell both the problems and the solutions to anyone who has the money to pay for them - normally the "*doers*". From a business perspective, this means that industry in the developed world has to contend with an armada of lawyers and marketing consultants and business-efficiency and public-relations consultants that all appear to do something vitally important and, yet, do not appear to exist (in such numbers) in many developing countries. The overall result is that what once appeared to be "*so*" is now "*nearly so*" and what once appeared to be "*not*" is now "*nearly not*".

An armada of experts, finding complex solutions to simple problems, is only one side of the dilemma faced by industry in developed societies. The other side is the large number of people that offer to sell simple solutions to complex problems. This, in itself, would be remarkable, were it not for the

fact that it is seldom possible to achieve such solutions. However, the end-result of having a society in which some people peddle complex solutions to simple problems, and others peddle simple solutions to complex problems, is that there is now a need for industry to understand whether or not the problem they face is simple or complex before even attempting to determine who to call to resolve it.

Rogers and Hammerstein's King of Siam, therefore, did make a highly appurtenant observation about life in the developed world - not only does it appear to become more complicated, it also does become more complicated. Lawyers create legal problems, by encouraging clients to litigate against companies, and then create businesses that help to protect companies against litigation. Civil servants create complex bureaucratic departments to collect, administer and distribute tax-payers' funds, and then create other complex bureaucratic departments, to assist tax-payers in dealing with the original departments. Pharmaceutical companies create drugs with side-effects, that can only be eliminated with other drugs, which create other side-effects. Academics create new knowledge, that creates new ethical problems, that can only be addressed by other academics. Software companies create software packages, that could save inordinately large amounts of time, if it were not for the fact that it took even longer to learn them, make them operational and determine how to work around bugs (that have arisen because many developers have never actually used their own software in any meaningful sense). Car manufacturers create sophisticated safety systems for their vehicles that instill drivers with the confidence to push their vehicles even further and thereby involve themselves in accidents with which the safety systems were never intended to cope. Is it any wonder then that humans have an innate desire to return to simple remedies as a panacea to all their problems?

Many of us would like to think that we have stumbled over, or invented, a simple remedy to one, or more, of the world's problems. Some of us would like to believe that the invention is one of such genius that it will not only bring us great wealth and notoriety but it will also elevate us to the extent where the rest of the world will stop at nothing to unravel our secret formula. Those who come to think this way are said to have "*inventor's syndrome*". While some would scoff at the idea of a starlet being "discovered" in a Hollywood diner and turned into an international superstar, the notion of the "secret formula", and its ability to bring fame and wealth, appears very realistic to many people. And yet, the likelihood of such an

occurrence is so small that one may well be better served by sitting in a Hollywood diner waiting for the mythical celebrity discovery.

The inventor's syndrome is fuelled by anecdotal evidence of meteoric success (e.g., the discovery of Liquid Paper, Corn Flakes, Coca-Cola, etc.) and a desire to "get rich quick". The syndrome is therefore little different to waiting in the fabled Hollywood diner for discovery and it is further fuelled by evangelistic sales and marketing books, and seminars, that provide anecdotal evidence of how a few individuals "made their own luck". Success, it would appear, is far more newsworthy than failure and, so, it is again a case of history being written by the victors. The world often hears of the unemployed family man who spent his last dollar at the casino and left a millionaire, having "broken the bank". However, one seldom hears of the millions of unemployed family men, who spent their last dollar at the casino, and left the casino unemployed and without their last dollar. The reality, therefore, is that for every meteoric success story, and for every person that "made their own luck", and who "broke the bank", there were countless others who applied the same principles, failed miserably and were never asked to author a book sharing the secret to their failure.

Hence, in examining how the developed world copes with the rising tide of economic competition, it is important to examine the lives and professions of those who seek to make their fortunes in the developed world and whose lives, although unrelated, are often intertwined by a common desire to get rich quick. In particular, we need to examine:

- The inventors (who have made the secret discovery and have set out on the road to fame and fortune)
- The patent attorneys (who have made the secret discovery that inventors, who have made a secret discovery, will part with large sums of money to protect their road to fame and fortune)
- The consultants (who have made the secret discovery that the developed world will part with large sums of money in search of the secret knowledge that the consultants believe they have).

Needless to say, there are countless other groups that seek to make their fame and fortune over a short period of time - most of them tend to fall into one of the above categories in terms of aspirations. For example, the academics and

researchers, with their earth-shattering discoveries, and the book authors, with their potential best-sellers, all fit into the inventor category. The large marketing and advertising firms probably fit into the same category as the patent attorneys because they, like the government, are there to help (the inventors). The new-breed of retailers also fit into the same category as the patent-attorneys because they too are there to help the inventor distribute his/her product. The consultants group is a "catch-all" group because it is so wide ranging that it covers everyone from engineers and scientists, through to business analysts and lawn-mowing advisers.

If we begin our examination of the road-to-riches phenomenon with the inventors, then we firstly need to note that there are a considerable number of precedents, where back-yard inventors have developed products (often very simple products) that have become internationally successful. There is no reason to believe that this will not continue to occur. However, the issue that needs to be addressed is the probability of success and why this has, seemingly, diminished over the years.

In simple terms, it would be reasonable to suggest that a market, into which new products can be sold, becomes increasingly more sophisticated as it is exposed to other similar products and to the ambient technology of the day. The ability of a product to compete in the market is also determined by the relative quality of the product and the relative cost of the product. These factors are, in turn, a function of the design and manufacturing processes behind the product and the cost of managing these processes, together with the marketing, sales and distribution of the product. So, whereas in the 1940s, a man could walk into his home garage and fit an old motor to a piece of formed metal and wheels, in order to make a motorised lawn mower, a half-century later, the same product required:

- State of the art motor design, with minimal moving components; high-efficiency; high-reliability; low pollution and noise levels
- Design of complex plastic mouldings that were analysed in terms of strength; temperature and weather resistance
- Design of complex metal mouldings and pressings that were analysed in terms of strength and corrosion resistance

- A series of shapes and mechanisms that were analysed in terms of their aerodynamic properties as they related to the grass removal process
- Conformance to numerous safety standards and specifications in order to minimise the prospects of litigation, in the event of an injury occurring with the device.

Hence, after half a century, what was once a back-yard operation ultimately required teams of engineers, sophisticated computer aided design equipment, expertise in plastics, engine technology, industrial design, law and so on. Even though the process of lawn-mowing had not changed over half a century, the expectations of the marketplace had dramatically changed.

The expectations and sophistication of the marketplace are conditioned by a number of factors, including:

- The ambient technology level
- Historical factors (e.g., an enterprise or product with a centuries-old history of excellence)
- Marketing and fashion trends (and the marketing of fashion trends)
- The changing role of retailing and the integration of retailing and marketing roles.

All of these factors influence the probability of an inventor succeeding with an end-product and, just like the unemployed gambler entering a casino with his last dollar, there is still advantage to be derived from being in the right place at the right time.

One could well argue that the role of an inventor is to develop new ideas and not to compete with established mass-produced products. However, consider again the lawn-mower example in terms of the inventor. An inventor, seeking to enter the garden-product market, may not have sought to develop a new lawn mower, in the 1990s, but the sophistication of the garden-product marketplace would have been such that any gardening product that he wished to develop would have been compared, and judged (in

terms of design and sophistication), against the state-of-the-art lawn-mower of the time.

What does this mean in terms of the inventor? The answer is that, once a marketplace becomes highly sophisticated, the inventor can no longer enter that marketplace without investing large sums of money or without assistance from large companies that can invest the equivalent money and resources to make a product competitive. The same phenomenon has occurred in many other areas, including the automotive arena where the 1940s, 1950s and early 1960s witnessed a plethora of back-yard companies seeking to earn their place in the world against large rivals. One small company, that was famous for making cement-mixers, naively decided that producing cars couldn't be any more difficult than producing cement-mixers. To their astonishment, they discovered that automotive customers were already too sophisticated to purchase vehicles that performed like motorised cement-mixers. Nevertheless, had they made their attempt a half century earlier then they might have been in the same position as the embryonic companies formed by Daimler, Benz, Ford, Rolls and Royce, which entered the marketplace in its formative stage, and grew and matured with that marketplace.

If the cement-mixer/automobile example appears ridiculous in hindsight, then consider the number of small companies in the post-1990 software arena that sought to make commercially-viable commodity products (e.g., operating systems, word-processors, spread-sheets, etc.) despite the enormity of the competition and the sophistication and strength of its marketing and distribution. Old examples often appear sillier than recent examples only because we have become more sophisticated in terms of our understanding of the technologies involved. In reality, the same naive silliness could equally be applied to the software industry and numerous other high-technology industries of the early 1990s. The difficulty, for the inventor, is therefore not only the sophistication of the marketplace, in one particular area, but also that the sophistication of the marketplace permeates into every facet of that marketplace, thereby creating an ambient technology level that is difficult to overcome.

An inventor that, for example, wishes to make a specialised piece of electronic hardware, for low-volume industrial application, is confronted with a marketplace that has been conditioned by sophisticated mass-produced products. Customers expect that all products will have the levels of

aesthetics, ergonomic design, quality and so on that can often only be achieved (and justified) in high-volume, automated, mass-production environments. It may well be that an inventor's product is eminently superior (at a technical level) to existing mass-produced products. However, from the customer's perspective, it is the total product (including aesthetics, design, technology, marketing, etc.) that is being evaluated in the decision-making process. Therefore, unless the modern inventor can compete at all levels (including marketing and distribution) then success is very difficult to achieve.

Another issue that became more pronounced, during the course of the 20th Century, as the marketplace became more sophisticated, was the selling of a company rather than a product. The marketplace was sometimes consciously (and sometimes subliminally) conditioned into buying products from particular companies, rather than just buying products. Therefore, the company (i.e., its perceived image) became an integral part of the buyer's decision-making process. Nowhere was this phenomenon more pronounced than in commodity products such as junk-food, banking, high-volume software and computer hardware, etc. By definition, it is difficult to differentiate between commodity products, in terms of technical merits, because each product has advantages and disadvantages and, in the final analysis, most could be said to achieve the same objective. Differentiation, in the modern commodity marketplace, therefore tends to emanate from the corporate image as much as it does from products and services themselves.

If the issues raised, thus far, are daunting enough, then one also has to consider, on behalf of the inventor, the problems of marketing, sales and distribution in their own right. Of particular concern is the notion of retailing in the developed world. What was, at the beginning of the 20th Century, an industry composed many small family-owned stores and a few large department stores, changed dramatically over the course of the century and became a science in its own right. At the beginning of the century, the objective of a store was to sell essential goods and services, and the cost of products was largely based on their quality and cost of manufacture. However, by the 1980s, retailing in the developed world had already changed from servicing a household chore (i.e., buying essential goods) to providing lifestyle entertainment. People no longer purchased goods solely because they were required but, more often, because of a need for self-gratification or because the goods were a lifestyle statement. Nowhere was this more apparent than in the clothing, textiles and footwear industries which, more

than any other industries during the course of the 20th Century, moved away from traditional quality and durability attributes towards high-profit, low-quality, rapid-turnover products.

During the course of the 20th Century, the provision of essential goods and services became only one part of the retailing phenomenon. The remainder was in the provision of entertainment through the selling of frivolous goods in glamorous stores. In a sense, many of the goods sold in modern shopping malls became little more than an entry-ticket that enabled the "shopper" to view glamorous store displays. Shop-fronts, which were once little more than functional entries and displays, became an art-form and a marketing statement in their own right. This transition from simple service to lifestyle, in turn, led to a dramatic change in the market's perception of quality in some areas. For example, at the beginning of the 20th Century, a "designer label" in the clothing, textiles and footwear industry was something associated with extremely high quality and rarity that could, by definition, only be possessed by the gentry of society. By the end of the 20th Century, designer labels had become little more than marketing mechanisms used to sell mediocre products, manufactured in undeveloped and developing countries. The notion of quality, in areas such as clothing, textiles and footwear, had therefore been redefined as a combination of corporate image (i.e., the designer label) and style (as defined by the marketers of the corporate image), rather than as an intrinsic attribute of the product itself. Hence, a quality product was not necessarily one made of the finest cloth and with the finest workmanship but one with the finest label and perceived design.

It would be reasonable to suggest that, during the course of the 20th Century, retailing became an enormous force in its own right and this, in turn, influenced the way in which consumer products were viewed by the marketplace. Large shopping mall complexes became defacto amusement parks and the retailing tenants within those complexes had to change accordingly. The amusement value of the shopping complexes had to be paid for by customers and, so, retailing tenants focused all their sales on high-profit-margin high-turnover items such as prepared foods and low-quality clothing, textiles, footwear and costume jewellery. However, not only did the traditional notions of quality disappear but so too did the traditional notion of having many small (independent) retailers. In order to survive in the shopping-mall environment of the late 20th Century, retailers had to buy goods at very low prices and sell them with enormous margins in order to

cover their staff-costs and lease costs within the amusement park environment. Even then, it became apparent that the old-fashioned independent stores could not prosper in such an environment and so the concept of franchising escalated dramatically. Hence, by the end of the 20th Century, the marketplace for products had become dominated by large retailing chains and franchise outlets, with a diminishing number of independent stores.

The retailing giants further refined the way in which products were sold. Recognising that customers made purchases based on perceived quality (e.g., designer labels, etc.) rather than actual quality, large retail outlets moved from the traditional notion of actually "selling goods" to a form of marketing interface that forced retail customers into line with the marketing output of the product manufacturers. By the end of the 20th Century, the role of a large retailer was to rent-out "shop-floor" space to a range of product manufacturers, and to then strengthen the marketing of a collection of those manufacturers, by marketing the image of the principal retailer (e.g., department store). Hence, many product manufacturers would not only have to rent space, within a department store, but also pay for marketing (e.g., sales catalogues) and store displays for the retailer. In some instances, the principal retailer didn't even own the space that it rented-out to product manufacturers - this, too, was leased, in entirety, from some other organisation. Hence, by the end of the 20th Century, the large retailer had become a powerful marketing tool for product manufacturers rather than a shop that simply bought goods from wholesalers and sold them to customers.

In reality, therefore, modern retailing became a major "value-adding" enterprise in its own right and the value and quality perceptions of consumer goods in the marketplace was largely defined by the retailing sector. The "product" diminished in importance because the customer no longer merely "bought" a product - the customer bought a label, jointly marketed by the manufacturer and the retailer through the ambience of a store which was, in itself, a three-dimensional marketing tool. So, whereas at the beginning of the 20th Century, a retailer may have only contributed 10-20% to the retail value of a product, over the course of the century, the combined retailing/marketing input rose to be in the order of 90% of the retail value of some products (particularly in the case of clothing, textiles and footwear).

In simple terms, one could suggest that the single greatest change in retailing, over the course of the 20th Century, was that retailers moved from

being organisations that purchased goods from manufacturers and sold them to the public, to organisations that provided a complex marketing service to manufacturers. In other words, the retailer was no longer a client or customer of an inventor or manufacturer - the retailer had become a "fee-for-service" provider in the same fashion as a consultant or attorney or accountant.

All this discussion may appear to be peripheral to the role of the inventor but it is, in fact, a key reason why inventors, as individuals, are unlikely to achieve fame and fortune in the developed world unless considerable sums of money are invested in their inventions. If inventions are oriented towards a consumer market, then one has to accept that the marketplace will not respond merely to "need" because, at any given time, the developed world probably has more products and services than it actually needs. The marketplace response to consumer goods will be based upon perceived needs that are largely defined by the combined marketing strength of a product manufacturer and retailer. This doesn't necessarily mean that the quality or utilitarian value of manufactured goods has decreased over the course of a century but it does mean that marketers and retailers have a far greater influence on these factors than at any previous time.

If we accept that retailing can influence product quality then, from an inventor's perspective, we need to consider whether or not the net effect, over the course of the 20th Century, has been an overall reduction in product quality or whether the relative standards, imposed by the marketplace, have increased. Many consumers have moist-eyed memories of product quality from decades past and perceive the quality of modern products to be far inferior to those of a by-gone era. With a few exceptions (notably clothing and footwear), this is an inaccurate perception of the modern world. In many, many areas product quality has increased enormously and product costs have decreased dramatically. The quality and reliability of electronic / mechatronic consumer goods (home electronics, refrigerators, etc.) have consistently increased since the 1950s. Despite constant anecdotal references to the contrary, both engineering and statistical evidence suggest that the reliability and longevity of modern vehicles and combustion engines have also increased dramatically. Interestingly, the design quality, functionality and ergonomics of such items have all increased enormously even in the light of increased complexity. All these improvements have occurred because of factors including:

- Technological advancements in semiconductors and power electronics, plastics, polymers and other advanced materials
- Major advancements in the quality and precision of material-removal machine tools through computer control
- Significant increases in automation levels and the elimination of manual-repetitive tasks that can lead to poor quality
- Improvements in the management of quality within companies.

So, one might intuitively suggest that, while modern retailing tends to down-grade the intrinsic quality of products, in favour of marketing and higher profit margins, the technological advancements that occurred, over the course of the 20th Century, greatly overshadowed the influence of retailing and the net effect was a dramatic escalation in product quality in many areas. However, one could further suggest, that the negative influence of retailing was to channel consumers into purchasing lower-quality goods than they might otherwise have been able to afford if retailing had remained in its early 20th Century form.

In summary, therefore, the modern-day inventor has to cope with a number of land-mines that are planted along the road to success. These include:

- An absence of corporate image
- An inability to enter into well-established areas without large investment or without support from large companies
- A high risk in terms of attempting to sell a "new" idea into an untested marketplace
- An ambient technology level that creates a sophisticated marketplace and sophisticated expectations in terms of products, quality and cost
- A complex marketplace whose needs for new products are often defined by a close networking of retailers and existing product manufacturers

- Often, a lack of experience and understanding of the marketing, sales and distribution of products.

In other words, the inventor has very little probability of succeeding as an island of knowledge, unless the inventor starts with a considerable amount of money. The inventor needs help - often financial but, more appropriately, help in understanding (and fitting in with) the overall process of research/invention, development and commercialisation. . However, as has already been noted, the development and commercialisation issues (including marketing, distribution and sales) are often orders of magnitude larger than the issue of generating an invention or research idea. The notional ratio of one dollar for research, to ten dollars for development, to 100 dollars for commercialisation applies to inventions as much as it does to any high-level company or university research program. Therefore, the sad reality for the inventor is that the marketplace doesn't really need his new ideas unless it is told to need them by a complex web of marketing, distribution, sales and support that tell the public that an idea is necessary, that it has been converted into a product with an appropriate level of quality and that it is desirable, over an above competitor products.

In spite of all the above problems, and in spite of the relative insignificance of an idea, compared with the cost of generating a successful "end-product", there are many cases of inventors approaching companies in order to sell them an idea and then expecting that the companies will allow them to retain the bulk of the profits from the "end-product". This is phase one of "*inventor's syndrome*". It is at this point (and often after the inventor has been rejected by numerous companies that appear indifferent to the inventor's ideas) that the inventor moves into phase two of "*inventor's syndrome*" - the conspiracy theory. As the inventor grapples with the notion that his invention is perceived, by companies, to have little or no value, it is "*inventor's syndrome*" that leads him to the conclusion that this is all a clever rouse employed in order to get him to reveal his secret formula so that it can be stolen and commercialised. The inventor then casts his mind towards all those anecdotal stories of meteoric success - the paper clip, Liquid Paper, Corn Flakes, Coca-Cola - and the inventor's secret formula is at least as brilliant as all of these - it must be worth billions. Of course, it all becomes clear - companies scoff at a brilliant idea and then steal it after the ridiculed inventor has been convinced that it is worthless! The "*inventor's syndrome*" then moves into phase three - the most expensive phase, the patent attorney.

Fuelled by a burning rage, because the commercial world has scoffed at the inventor's idea, in some conspiracy to extract it from him, the inventor finds solace and understanding from the patent attorney who, like the government, is there to help (for a fee):

"How much do you believe your invention would be worth if it was to be commercialised?"

"It's at least as brilliant as Coca-Cola, Liquid Paper and Corn Flakes combined - it must be worth billions!"

"Then we must ensure that we protect it at all costs (your costs)!"

"Can't you just settle for, say, one percent of the profits from my invention?"

"Er, no - we don't want to be too greedy - our usual up-front fee for patenting this invention and establishing confidentiality agreements will suffice."

The "*inventor's syndrome*" then moves into phase four - finally, the inventor has found someone who understands his genius and agrees with his analysis of the invention's worth - this is a person that can be trusted to help.

Having found a trusted ally along the road to fame and fortune, the inventor then encounters another land-mine when the patent attorney informs him that a patent requires more design detail than the inventor is capable of providing:

"Better call in a consultant to help you out with the design - otherwise you will never get your patent approved. However, before you talk to anyone, make sure that you have me draft an appropriate confidentiality agreement - we don't want anyone stealing your idea."

The "*inventor's syndrome*" then moves into phase five - calling in the consultants and paying to have confidentiality agreements drawn up to maintain secrecy. And still, not a penny to show for all the expense.

Most inventors call it a day once they reach phase five; have some preliminary design work completed; realise the enormity of the task that

confronts them and the costs of any meaningful protection. Some persist long enough to have their patent approved, only to realise that nobody really wanted it in the first place and that, even if they did, the inventor could probably not afford to litigate if the patent was breached. At this point, "*inventor's syndrome*" causes two different types of reactions:

- Some inventors, having realised a patent, and having exhausted their money supply, are content to resume their former lives, satisfied that their brilliant idea was "*too far ahead of its time*" to be appreciated by the public and the barbarians in industry
- Some inventors become very bitter and reconcile their failure by saying that they are only creative geniuses, that do the "major" portion of the work by coming up with the invention, and it is up to industry to do the "minor" work associated with development and commercialisation ("*no wonder the country is in such an economic mess when they don't have the foresight to commercialise my multi-million dollar idea*").

Few inventors ever come to comprehend the real reasons for their lack of success or the complexities of converting an idea into a successful end-product. And, of all the hundreds of thousands of inventors, around the world, that do push their ideas and patent them, there are always a small few that ultimately do make millions or even billions of dollars - like the gamblers that broke the bank at the casino, these people often go on to write books on how they "*made their own luck*" and thereby inspire the hundreds of thousands of inventors that follow, to believe that they, too, can get rich quick. Perhaps, if every inventor that failed, wrote a book, explaining the secrets to failure, then those that followed would have a much clearer picture of the true process of invention, commercialisation and the secrets to success.

Many sectors in the developed world are structured to help those, who want to get rich quick, to become a little poorer, a little faster, by assisting them along the road to riches. In many countries, these sectors are referred to by the sophisticated title of "consulting services". The beauty of having businesses, founded on the principle of helping others to get rich quick, is that the developed world has so many people and businesses looking for simple ways to get rich quick that the market is always bursting with opportunities. Little wonder then that the developed world is filled with consultants who, like the government, the retailers and the patent attorneys, are there to help.

Consultants, like cats, dogs and monkeys, come in a range of shapes, sizes and breeds, so it is difficult to generalise their attributes and their worth to developed societies. Suffice to say that the purpose of a consultant is to provide some knowledge-based service to clients and that the service and benefits are often intangible and difficult to quantify. Consultants are the ultimate expression of "*how-to-do-ness*" because their principal objective in life is to tell others *how-to-do* things, preferably better than they have done them in the past. This often translates into situations where *how-to-doers* are engaged to tell "*doers*" how to do. Although this sounds ridiculous, it can have benefits because the *how-to-doers* can take a broader view of the problem facing the "*doers*" (who are often too busy "doing" to see what they are "doing" incorrectly). However, the general role of consultants is often much broader than just telling people *how-to-do* and, hence, consultants can be called into an organisation because they possess a number of potentially useful attributes:

- (i) Consultants may have a specialised knowledge or expertise that is not available within the organisation (e.g., accounting, engineering, financial, legal, marketing, medical, etc.)
- (ii) Consultants may have general knowledge, that is already available within a company, but can provide an additional injection of man-power to complete a short-term project (for which it is not practical to hire staff on a long-term basis)
- (iii) Consultants are sometimes perceived to be independent advice providers that can analyse internal problems from an external perspective
- (iv) Consultants can act as an invisible interface between staff in a company (e.g., a company may hire a recruitment consultant to independently advertise senior positions and screen applicants in order to prevent internal people from applying for promotion).

In the final analysis, however, it is only attribute (i) that really defines a true consultant and makes a consultant different to any other employee within an organisation. Consultants that only have attribute (ii) are, in reality, only acting as contractors or short-term employees. Those that have attributes

(iii) and (iv) are providers of a service that may have benefit to an organisation but, unless they have some specialised knowledge that is not generally available, then they too are contractors.

The difficulty with acquiring attribute (i) (i.e., genuine expertise) is that it may take many, many years of hard work in order to become an overnight success. This concept does not fit in with many people's visions of getting rich quick and, so, given the vagueness of the term "consultant", most people appoint themselves as consultants with little appreciation of what is actually required. It is not surprising, therefore, that few consultants, or consulting firms, actually provide consulting services in the sense of "unique expertise".

Consultants are very similar to inventors in many ways. To begin with, people often become consultants and start their own businesses because they develop their perceptions of financial success on vague anecdotal evidence that has been gleaned from others. The most common perception is that the hourly rate charged by large consulting firms appears to be enormous when compared against the hourly rate that most "equivalent" professionals earn as employees. The other attraction to consulting is that, superficially, most consultants appear to be successful - working in attractive offices and driving exotic cars. And so, just like the Hollywood starlet, and the unemployed gambler and the inventor, many professionals see consulting as a road to riches. Needless to say, the probability of someone becoming enormously wealthy from consulting is almost as remote as that of the inventor becoming rich from his "secret formula"; the unemployed gambler breaking the bank at the casino or the Hollywood starlet being discovered in a diner. This probability is reduced even further when the "consultant" doesn't have any highly specialised knowledge and seeks to create a business based upon the sort of professional knowledge that is generally available.

In order to understand why consulting is not a road to riches, one first needs to understand the concepts of "income" and "salary". Many would argue that these concepts are self-explanatory but very few people really understand them. To begin with, we need to accept that people have to derive an income in order to survive, from the time they leave their parents' financial care, to the time they die. For a professional, this might be a period in the order of 60 years (from the age of 22 to 82, say). Some of this income will be derived for services rendered (from the age of 22 to 62, say) and some will be derived from accumulated savings/superannuation (from the age of 62 to 82,

say). So, assuming that retirement income will be derived as a result of money generated from services rendered (over a 40 year period), then one really needs to measure income by averaging it over an entire working life. While all this may appear to be rather obvious, it is interesting to note that many consultants, and aspiring consultants, still perceive income to be measured in hourly terms, and this is where the "get rich quick" myth emerges.

Consider that "income", in terms of an employee in a large corporation or government enterprise, is relatively stable, with gradual increments over a 40 year period. The actual "dollar" income received by an employee is only a part of the total picture. An employer has to consider additional overheads of superannuation, sick-leave entitlements, accounting and pay-roll costs, office costs and so on. The employer also needs to consider that employees often need to be retained even when they are not contributing towards corporate income - for example, a company cannot retrench professional staff that are inactive for one or two weeks (because there are no customers) and hire new ones a few weeks later (when there are customers). Hence, in determining its hourly consulting rates, a large consulting firm would consider the percentage of time that its employees were actively producing outputs; the cost of buildings, offices, etc; the cost of secretarial, accounting, management and other overhead staff (that do not directly contribute to output) and so on.

If one takes all the above factors into account and then considers that, during periods of economic recession (where external services, such as consulting, are the first to be cut), a core staff of employees still needs to be retained (and paid for), then one can see why the disparity, between an employee's hourly rate, and a consulting firm's hourly rate, exists. In order to be viable, much less survive and grow, a consulting firm that pays its professional staff "X" dollars per hour might need to invoice its customers between five and 20 times that amount. Superficially, of course, it appears as though consultants are paid enormous sums of money for their work.

The other factor that comes into play in a consulting business, but is often invisible, is that of capital. In a manufacturing business, capital is very visible because it exists in terms of plant and machinery. In a consulting business, the core capital is knowledge. Knowledge is similar to other forms of capital because it has a very limited shelf life, particularly when it relates to technology-based fields. After a period, knowledge proliferates and, when it becomes common, it no longer has value. Therefore, a consulting business

that does not continually build its knowledge-base eventually exhausts its only source of income and ultimately has nothing left to offer the marketplace. A professional, that elects to make a lifetime career from consulting, therefore has to consider how his/her knowledge base will be continually increased, in order to sustain a career for a period that could be as long as 40 years. The cost of that learning then has to be factored into the income-earning equation.

Most large consulting firms around the world, that appear to charge enormous sums of money, in terms of hourly rates, are often doing little more than any other businesses in terms of costing their product. To outsiders, however, the product is often (naively) compared against hourly rates for long term employees and, so, in the developed world, there has been a surge towards a consulting culture. But does the developed world really need the consulting culture that has emerged?

If one considers individual consultants (and small consulting firms) as short-term contractors and then considers that many consultants naively try to undercut large consulting firms, because they don't fully understand the concept of income (as it pertains to a 40-year working life), then one could well argue that there is an important role for such people. In effect, such consultants are really doing little more than providing a cheap and flexible form of professional labour for other companies. For example, a company that wishes to develop software, for one of its products, may well find it more cost-effective to hire external contractors and thereby save itself the problem of having permanent staff (that may often be inactive) and constantly paying to retrain them in state-of-the-art software techniques. The end result is that the hiring company has pushed its problems down onto individuals who, taking a short-term view, feel that they are well compensated for the service that they provide. In this sense, therefore, consultants can lower the cost, and raise the efficiency, of professional services in society.

If one considers consultants as individuals, who have some highly specialised ability or knowledge, then there is also an important role for them to play in the developed world. Consultants, that can remain at the forefront of an area of knowledge, provide an important mechanism for improving the efficiency of industry and business by helping to convert ideas into practical solutions. Of course, one has to realise that such consultants (real consultants) are a rarity and, again, those that choose such a path need to

consider the cost of acquiring and refreshing their knowledge if they are to sustain an income over a 40-year period.

The more unsavoury aspects of consulting tend to emerge when the business of consulting is converted into a science in its own right. Many large consulting firms have long recognised the fundamental problems associated with the concept of consulting and have taken steps to ensure that it can be a viable business (often a very large business), rather than a source of cheap and flexible professional labour. A large consulting firm is almost a contradiction in terms if one believes that a consultant should, by definition, be an eminent and experienced specialist that can apply rare (or unique) knowledge to problems. The problem is that if one is to rigorously apply such a definition to consultants, then the large consulting firms would probably be unviable as businesses, because of the difficulty and cost of bringing together an amalgam of such specialists and because of the cost of continuing education/learning. As a consequence, most large consulting firms, around the world, are composed of a core of senior professionals (who are not necessarily eminent specialists), that supervise projects, and a periphery of junior professionals who are used to do the "hands-on" work associated with projects. The end result is that many large consulting firms are essentially professional contracting businesses that charge (and need to charge) their services at realistic business rates - something which few individual consultants are able to achieve.

Once a professional consulting service is structured as a business (that has to recover costs associated with training, idle periods and recessions), the market becomes somewhat restricted because very few small and medium-sized companies can afford professional business rates. The result is that large consulting firms are really only suited to service other large organisations. Moreover, in large organisations, decisions related to the acquisition of external consultants generally emanate from board level, because of the large amounts of expenditure required, and therein the problem lies.

If large consulting firms had to solely depend upon the customary recommendations, or competitive bidding processes, to acquire work, then most would inevitably fail because (despite their claims to the contrary) they tend to provide commodity products that appear to cost a great deal of money. In other words, the large consulting firms (who may have a range of "good" staff with common professional knowledge) would have to compete against

many small firms, that may have staff with highly specialised skills, and charge unrealistically low rates. The larger consulting firms have therefore established a complex web of marketing strategies to ensure that they are not only competitive but highly successful.

As with most businesses, a good starting point for success is often to be big and successful from the start. Even though the service that a large consulting firm offers is essentially only a commodity, the image of the large firm sets it apart from the smaller competitors. If a large organisation has a major financial or structural problem, that shareholders want independently investigated, then it is the image of the consulting firm (rather than the quality of the service) that has the greatest influence on the decision-making process. Shareholders would naturally be more appeased to learn that their company had been independently assessed by the world's largest and most successful consulting firm than to learn that it had been assessed by a one-man consultancy (despite the fact that the one-man company may have been able to provide a better service). Moreover, the fact that a large consulting firm charges considerably more for its services than a smaller competitor is often a marketing advantage in such situations:

"Naturally, we hired and paid for the best - how could the small company possibly provide the same level of service for that price?"

The important point here is that when large companies engage external consultants, a common objective is for the company executive to be "seen" to be doing something, rather than to necessarily do something. To this end, the large consulting firms provide an ideal solution - an image that offers immense credibility and a service that seems to do something.

It may appear to be highly sarcastic to suggest that a large company would hire a consulting firm, merely so that it could be seen to be doing something, but one needs to consider the decision-making processes that occur at a senior level of the corporate pyramid. To begin with, executives at the apex of the corporate pyramid generally only have one prospective career path - downward. They have reached the pinnacle of their organisation and many are on a performance-based salary package. If, in the final analysis, the executives are accountable to shareholders (or tax-payers in the case of government and civil service), then they need to justify their performance on a regular basis. This justification can occur through a good financial outcome for the organisation, or from the perception of good executive performance in

the face of adversity. Large external consulting firms can provide both forms of justification and the credibility to reinforce the justification. If the performance of an organisation is good, then the consultant's role is to merely report that outcome. If the performance of the organisation is poor, then the consultant's role is to locate sources of adversity - generally those outside the control of the executive (e.g., federal industrial relations legislation; international exchange rates; interest rates; climatic changes, etc.).

If the above scenario appears to be a cynical interpretation of corporate process, then consider that most large organisations have an enormous amount of inertia and the factors that influence the marginal changes in profitability (from year to year) are so complex and multidimensional that they probably are outside the control of the executive. It is therefore reasonable to suggest that consultants should seek to find such factors when fortunes decline. The problem, however, is that when a company appears to perform well, the external sources pertaining to success are seldom sought with such gusto and the credit normally rests with the senior executives. So, unless senior executives make catastrophic decisions, that are blatantly attributable to the economic misfortunes of an organisation, then an external consultant's major role is to serve as a marketing vehicle for senior executives.

The role of consultants, in the developed world, is therefore considerably more complicated than might superficially appear. Can consultants be independent if they receive payment for services rendered? On the one hand, a consultant is "employed" to give impartial advice. On the other hand, the employer is also a client and, if the impartial advice becomes a poisoned chalice, and proves damaging to the employer (e.g., results in the employer's retrenchment or removal from a board), then a dilemma arises. Does the consultant persist with an accurate assessment of the situation or does the consultant seek to put a positive slant on the assessment when it should indeed be negative? Many would argue that, from an ethical point of view, the consultant should portray the most accurate perspective but accuracy and business do not always go hand in hand. If a consultant portrays an accurate image, and this damages the client, then the consulting business can suffer. Hence, consultants become experts at converting black and white into shades of grey - what was so becomes only nearly so and what was not becomes only nearly not.

Keeping in mind that a consultant's role, in the 20th Century, was as political as it was technical or professional, those consulting firms, that recognised such attributes, developed sophisticated marketing strategies to capitalise on the process. Most of these strategies were based upon the theory that the outcomes of a "competitive bidding process" for consultants were often known, before the bids were called, and that project descriptions were often written with a specific outcome in mind. Again, this may appear to be a very cynical perception of a business process but one must consider that a primary role of a consultant is often to take an independent view (that concords with the views held by those appointing the consultant). So, for example, in writing the specifications for a consulting study, a board of directors, that was accused of incompetence and inactivity, might skew the process so that it focused on the more "global" issues affecting the company (e.g., interest rates, electricity costs, industrial relations problems), rather than on narrow issues relating to the efficacy and competence of the board itself. When such a specification was issued, those consulting companies that were proficient at exposing incompetence and fraud might be deemed incapable of meeting the criteria, whereas those that were proficient at taking a "global" view (the big picture) might be deemed suitable. A seemingly independent evaluation of the company could then be provided, highlighting the strides made by the board in the light of immense adversity.

Needless to say, it would be difficult to substantiate such a cynical view of consulting with hard statistical evidence. However, even a superficial examination of a few of the outputs from large successful consulting firms, leads one to the observation that consulting success tends to come from taking "the big picture". Very few of the large consulting firms of the 1980s and 1990s survived by dealing with details and specifics because these could lead to conclusions that could be interpreted as accusations against those commissioning the consulting. The moral in consulting, as in pharmaceutical, automotive and aerospace manufacturing, is never to supply a product that results in the destruction of the buyer (and hence the eventual destruction of the marketplace).

One would naturally assume that when consulting takes place at a technical level (engineering, accounting, etc.), there is potentially less vested interest in influencing the outcome because the process has fewer shades of grey. However, the notion that several consulting companies can provide the same outcome is a major source of concern for the consultants because it means that there is no product differentiation between companies. In the case

of larger consulting firms, a lack of product differentiation leads clients to seek lower-cost alternatives, such as individuals and small consulting companies. Hence, even at a technical level, vested interests tend to emerge, with larger consulting firms sometimes becoming agents for software and systems that can set them apart from smaller competitors. Again, the larger consulting firms appear to offer "the big picture" solution, whereas the smaller organisations are seen to focus on specifics.

From a business perspective, the "big picture" is the best picture and the best product that can be offered. Large organisations and government departments prefer to be presented with a big picture because it can be interpreted in any number of ways; it doesn't need to be implemented quickly and the outcomes are seldom specific enough to be measured in terms of performance. For example, a consultant's report to government or to a large organisation, recommending that "industrial relations" be reformed is a god-send because the whole field is so nebulous and difficult to quantify that any changes can be seen as successful reform. Moreover, when such recommendations are made in a period of economic recession, those charged with the responsibility of implementing the reforms can readily claim that their work is part of a long term process (while the recession continues) and claim success as soon as a period of growth emerges. At a technical level, the big picture recommendations can pertain to the implementation of some major system or management philosophy in the organisation, that can be implemented over any number of years. Again, a successful implementation is claimed as soon as things appear to be going well and the long term nature of the task is highlighted when things are going poorly.

The "big picture" solutions are bad news for the small-time consultants that view consulting as a road to riches. Large consulting firms have recognised that those who are senior enough, to control the purse-strings in client organisations, are interested in the "big picture" because it is the "big picture" that influences their path up the corporate pyramid (the "bigger" the picture, the closer one is to the apex). Senior executives must therefore be seen to be successfully implementing "big picture" solutions - for example, installing major systems and techniques that permeate through the entire organisation (accounting, sales, marketing, manufacturing, etc.). Large consulting firms pander to such executives by seemingly providing "no-risk-big-picture" solutions. The beauty of such solutions is that they normally take years to implement and evaluate and, by the time the organisation realises that they don't actually work, the executive who commissioned them has long

moved onwards and upwards. In a worst-case scenario, if everything associated with a "big picture" solution has visibly failed, then one can readily claim that the organisation hired the "biggest and the best consultants in the business" to advise them and, if they couldn't do it, then nobody could.

While the small consulting firms of the 1980s and early 1990s endeavoured to compete by price-cutting or small-scale advertising, many of the large consulting firms recognised that large-scale software was a perfect vehicle for "big picture" solutions in the high-technology environment of the developed world. This broadened the scope of their marketing web to capture industrial segments of the market in addition to the traditional business sectors. Large-scale software systems embraced areas such as accounting, manufacturing, sales, payroll, marketing, etc. and fitted in with executive views of improvements in the industrial sector - integration, stream-lining and so on. What could be more appealing to an executive than to be responsible for single-handedly commissioning the installation of a software system that resolved all the apparent problems of the 1980s and 1990s? As with business-oriented consulting services, the key to success was in ensuring that a system was complex; took a long time to install and that data entry and retrieval were so tedious that, after a period, no-one in the organisation could remember how well or how badly things operated before the system was installed.

In simple terms, big picture solutions enabled those who commissioned them to control both timing and success to coincide with career aspirations. So, in a sense, the major (successful) forms of consulting in the developed world, in the 1980s and 1990s, moved away from providing tangible results towards flexible results that could be interpreted according to a client's needs at a given time.

As if the political aspects of the consultant's role weren't daunting enough to dissuade budding young consultants from starting off on the road to riches, even the more direct forms of marketing were challenged by sophisticated marketing strategies implemented by larger consulting firms. The basic premise in consulting is that clients purchase services based upon trust - the trust that a consultant will act in a particular (often predictable) manner. Few people purchase consulting services based upon a color brochure, because the brochure can never instil the sort of trust that is required in order to secure a consulting project. Again, the larger consulting organisations recognised this phenomenon and, at the same time, recognised

that a significant proportion of their staff were not proficient enough to establish the appropriate levels of trust. A number of networking solutions were therefore implemented in order to ensure a steady flow of business.

One networking approach was for large consulting firms to offer "retainers" to former senior executives from large organisations. The assumption was not that the executives would provide "technical" advice to the consulting firms but, rather, that they would be appointed to the boards of other companies and, potentially, provide useful information and contacts when required. Another networking approach was where large consulting firms "paired" their employees with employees in target organisations. A junior employee in a consulting firm would be paired with equivalent junior employees in current (and prospective) client organisations. The objective was to form bonds with aspiring professional staff and, as those staff in target companies rose to levels of seniority, so too did the paired employees in the consulting firm. The long-term objective was to ensure that there were strong networking bonds at all levels and that these bonds were kept active, through invitations to golf games, social functions, etc. When a target organisation had a need for consulting, then the bonds were so strong that processes in the target organisation became skewed to ensure that the paired partners (in the consulting firm) were (either consciously or subconsciously) given very favourable treatment.

The networking practices, introduced and implemented by large consulting firms, during the 20th Century, were, needless to say, a very costly and sophisticated form of marketing - they were also something that could not be readily replicated by a small consulting organisation. Again, the marketing process created product differentiation and enabled the larger organisations to maintain business in the face of lower-cost competition.

It would be interesting to determine whether large consulting firms became such political beasts because of their inherent nature or because of their need to survive in a highly complex environment. In other words, the customary chicken-and-egg scenario arises. Did large consulting organisations play by a fair set of rules until they realised that they could no longer compete against the unrealistically low prices charged by small consulting firms on the road to riches? Perhaps, the answer is that the large consulting firms did no more than successfully respond to the changes that occurred in developed societies around the world.

Faced with immense pressure to compete against low-labour-cost countries, industry in the developed world had less and less scope for error and, yet, at the same time, the decisions that people made were more and more prone to error because they were more complex. So, the large consulting firms were, perhaps, doing little more than fulfilling customer needs - that is, providing seemingly simple, error-free, solutions to all their problems. Even if, in practice, they were providing no real solutions to the specific problems at hand, they were providing a very real solution to those that engaged them - a secure, no-risk set of decisions.

Overall, if one reviews the problems and practices of the inventor, the retailer, the patent attorney and the consultant then one can see that there is little difference between business in the modern world and life in the jungle - the business world is divided into predators and prey. Of course, this has always been the case but the most significant change that occurred, over the course of the 20th Century, in these areas, was that it became more difficult than ever to differentiate between the predators and the prey. However, one thing became apparent - those that believed that they could get rich quick, in a complex developed society, were almost certain to fall prey to those that had established sophisticated techniques to ensure their own business survival over a long period.

One could also look positively at the inventor, the retailer, the patent attorney and the consultant and suggest that, were it not for the complexity of the developed world, most would be unemployed and potentially spray-painting graffiti over subway stations to keep themselves occupied. However, in a larger sense, there is a price to be paid because the developed world has to compete against developing and undeveloped countries that are better focused upon "doing" activities that generate modest amounts of money in exchange for physical products. In creating empires of consultants, patent attorneys inventors and "value-adding" retailers, the developed world (with its zest for get-rich-quick schemes) focused upon *how-to-do* activities which, further and further, divorced it from the economic engine that drives society - that is, doing.

Is a puzzlement.

