

Chapter 4 Traps

TheSage's English Dictionary and Thesaurus defines the word 'trap' as:

- 1) Something (often something deceptively attractive) that catches you unawares
- 2) The act of concealing yourself and lying in wait to attack by surprise
- 3) Place in a confining or embarrassing position

A trap is therefore a rather insidious device often put in place by a person or persons who wish to take advantage of someone else. The person setting the trap will benefit from it whilst dealing a harmful effect to the individual that falls foul of the trap. In short, a trap is a trick used to deceive someone into doing something contrary to their interests or intentions.

So when trying to turn a dream into a beneficial experience, what traps should you be looking for and hence avoid becoming disillusioned and ending up with a dream that turns into either a fantasy or a nightmare?

The secret to disarming a trap is to know exactly what sort of trap has been set and who the trap was meant for. Bear in mind that the trap is laid to prevent the other person from planning a successful move. Therefore to disarm a trap set for a 'dreamer' the planner had better understand which set of plans are effected.

From Chapter 3, I proposed the notion that there were only 2 planning genres and they were:

- 1) Top-down method aka strategic planning
- 2) Bottom-up approach aka IT project planning

Therefore there are 2 genres of traps, namely:

- 1) Top-down method - 'paralysis by analysis'



- 2) Bottom-up approach - 'a death by a thousand cuts'



The thinking behind brain storming is that if enough topics are presented during multiple sessions with multiple attendees, something of value will come of them.

[Edward deBono](#) is one of the chief architects of this mind numbing activity. In his ‘famous’ book “[Lateral thinking](#)” (1967) he asserts that “solving problems through an indirect and creative approach, using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional step-by-step logic” is beneficial.

This is best summed up by the “[Infinite monkey theorem](#)” which proposes that given a thousand monkeys with typewriters and enough time, they could have produced the complete works of William Shakespeare. How bizarre! And yet this type of thinking still prevails today.

1.2) Requirements gathering

Multiple people are given the task of collecting multiples documents within the enterprise with the hope that these documents hold the ‘key’ to the survival of the enterprise. Some participants hoard documents from their previous positions, hoping that they will one day bear fruit. Often these documents contain implicit words, check boxes and images which made sense in the past but the real meaning (definitions) were probably lost due to the passage of time.

A good example of this exercise was the discovery of the ‘[Rosetta Stone](#)’ (created c196 BC) and written in 3 languages. It turned out to be nothing more than a record of a ‘reigning monarch granting a tax exemption to the resident priesthood’ in an ancient culture. It was therefore nothing more than an accounting document.

In 802 (nearly 1,000 years after the discovery of the Rosetta Stone and 1,000 years before [Jean-François Champollion](#) transliterated it) Charlemagne produced his “[Capitulare de villis](#)” which laid down strict rules for the way in which incomes and expenses were to be recorded.

These two types of sub-traps demonstrate that even as important as historical records are, the time taken to translate the contents of the documents is enough to cause an avalanche that could paralyse management’s activities.

2) Redundant deliverables - not noticing similarities

This trap is often overlooked and often leads to paralysing the efforts of understanding the contents of a strategic plan.

2.1) Misunderstood words such as: Aim, Intent, Purpose or Vision

It does not take a genius’ IQ to understand the difference between these words. All it takes is a good dictionary and thesaurus. To explain these consider using a simple table as below:

Word	Definition	Synonym
Aim	The goal intended to be attained (and which is believed to be attainable)	Goal
		Intent
Intent	An anticipated outcome that is intended or that guides your planned actions. Intended: Have in mind as a purpose	Aim
		Goal
		Purpose
Purpose	An anticipated outcome that is intended or that guides your planned actions	Aim
		Intent
		Goal
Vision	1) The ability to see; the visual faculty 2) The formation of a mental image of something that is not perceived as real and is not present to the senses	Dream
		Idea
		Plan

From the results it can be seen that the Aim, Intent and Purpose are all synonymous as they are all ‘goals’, however the ‘Vision’ appears to be different until you look closely at the synonym for the word ‘vision’ and that is an ‘idea’ and that is one of the synonyms for the word ‘aim’. Hence the four words are all synonymous.

2.2 Developing multiple matrices such as Decision, Priority

According to TheSage, a matrix is defined as “(Mathematics) A rectangular array of quantities or expressions set out by rows and columns; treated as a single element and manipulated according to rules”.

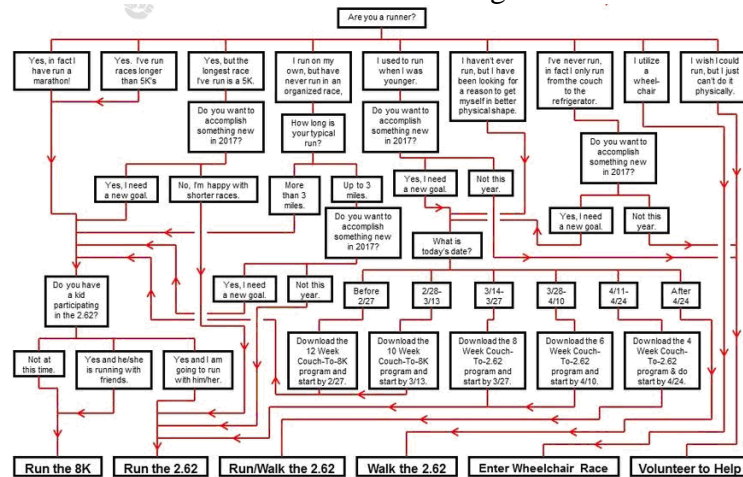
Dream: Plan: Experience – Book 1

Further, a [business matrix](#) is used to describe cross functional business units. The problem with matrices is that they are usually displayed as a 2 dimensional table which often contains blurred (implicit) data. In addition matrices often contain contradicting data which is difficult to validate.

Imagine the time required to fill out a ‘[Decision matrix](#)’ which contains rows and columns that links which manager decides on what activity is to be carried out.

KEY										
D = Decision: Decides plan of action; establishes policy, and may need to present to other groups for approval.										
SD = Shared Decision: More than one group participates in the decision - making.										
A = Approval: May approve proposals or recommend modifications.										
R = Recommendation: Valued input, suggestions, or proposals may come from this group.										
I = Input/Informing: May provide research or background information needed to make decision										
X = Seattle School District/School Board Policy impacts issue/decision										
	District	Principal	Head Teacher	All Staff	Grade Level Team	BLT	Reading Leadership	Bldg. Comm.	Parent / Comm. PTA	S.I.T
Oversee Trans. Plan, PD, and budget develop.										
Fiscal Management										
Vision & Goals										
Master Schedule & YR Staff Hiring										
Staff Performance Evaluations										
Safety										
School wide Events										
Bldg. Discipline Policy										
Facilities maintenance Building Use										
Community Programs										
Staff/Parent Relations										

Imagine the time needed to complete a decision flowchart if you need to make a decision about running a race:

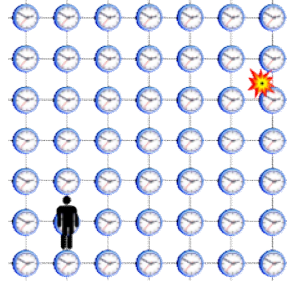


The above 2 examples are sufficient to demonstrate how using matrices will lead to paralysis by analysis.

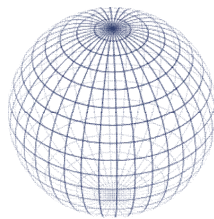
Matrices are a good presentation mechanism but a poor analysis one.

3) Non sequitur steps - steps out of sequence

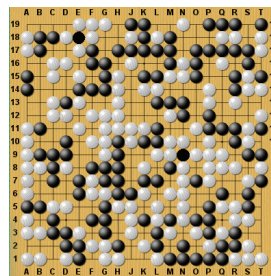
This is probably the most common strategic planning trap of all. A plan is after all merely a series of steps in the ‘[space time continuum](#)’.



The Chinese philosopher [Laozi](#) (circa 604 {BC} - circa 531 {BC}) was purported to have stated that “A journey of a thousand miles begins with a single step”. The real problem is the direction in which that first step is taken. In a sphere there are 41,252 possible directions.



In the game of chess there are 20 opening moves/steps (16 pawn and 4 knight). In the game of Go it depends on the size of the board. The usual strategy is to place the first piece in a corner of the board and therefore there are 4 starting moves. In the game of chess there are 400 second and 72,084 third moves whereas in the game of Go there are 9 million third moves (I was not able to find out how many second moves there are).



In planning there is only 1 first step, however the success of the plan depends on what that first step is. Subsequent steps depend upon the first step and hence the trap that you may find yourself in could be sprung on the first move.

Imagine the time required to examine every possible starting position.

3.1) Strategies before objectives

Unless you understand the difference between Goals, Strategies, Objectives and Tactics (the G'SOT), you're likely to dismiss anything else there is to say on the subject. So, for the uninitiated: ... A strategy is the approach you take to achieve a goal. An objective is a measurable step you take to achieve a strategy.

Yet some strategists still try to brain storm strategies after trying to decide what the enterprise's purpose/vision/aim is and then try to magically link management's objectives to this one objective. This is another example of the paralysis by analysis trap.

3.2) SWOT or TOWS analysis on strategies

As if the previous trap of developing strategies before uncovering management's objectives is bad enough, trying to carry out the strengths, weakness, opportunity and threat (SWOT) regime to uncover the said strategies is basically a waste of time.

According to some experts, SWOT has every thing to do with the internal view of an enterprise, whereas utilising the approach offered by threats, opportunities, weaknesses and strengths (TOWS) deals with the external view of the enterprise.

According to Michael Watkins (a notable journalist for the "Harvard Business Review") *"Both approaches involve the same basic steps and likely produce similar results. The order in which managers think about strengths, weaknesses, threats and opportunities may, however, have an impact on the direction of the analysis"* and *"that focusing on threats and opportunities first helps lead to productive discussions about what is going on in the external environment rather than getting bogged down in abstract discussions about what a company is good at or bad at"*.

If this does not produce paralysis by analysis, then what does?

There are a [number of alternatives](#) to SWOT such as:

- CORE Assessment - capital investment, ownership involvement, risk assessment and exit strategy
- Defensive/Offensive Evaluation
- PEST - political, economic, socio-cultural and technological
- SCOPE - situation, core competencies, obstacles, prospects and expectations
- SOAR - strengths, opportunities, aspirations and results

However, after reading the description of each of them, it will soon become apparent that they spring the same trap as SWOT or TOWS.

To avoid the trap simply ask the question ‘SWOT about what’? Therein lies the clue and the answer will be revealed in Book 4.

3.3) Developing data before knowledge

To understand this trap it is vital to realise that there is a difference between the words ‘data’ and ‘knowledge’. To come to grips with this difference, it is vital to define the words and notice the differences.

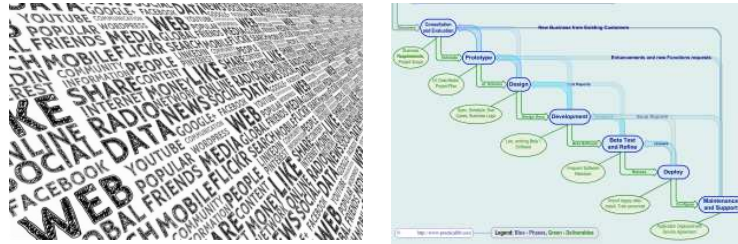
Word	Definition	Synonyms
Knowledge	A familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering or learning	ability
		awareness
		education
		expertise
		familiarity
		grasp
		insight
		intelligence
		judgment
		know-how
		learning
		observation
		philosophy
		power
proficiency		
recognition		
science		
theory		
wisdom		
Data	A set of values of qualitative or quantitative variables. Pieces of data are individual pieces of information	evidence
		information
		input
		knowledge
		picture
statistics		

Using the synonyms you may notice there is an overlap between the two words, especially the word 'knowledge', however after studying the definition of the word 'knowledge' the phrase 'something, such as facts' it soon becomes clear that knowledge' is separate from 'data' and that 'knowledge' contains 'data'. The next issue is what is 'information'? I will handle this in the next section (point 3.1).

While the management group is paralysed by trying to analyse what the business is and what it ought to be, IT database designers spend hours combing through documents, spreadsheets and reports and then try to analyse the data they have gleaned from them.

This is IT's biggest trap of them all. In fact IT not only suffers from paralysis by analysis but also from the bottom up trap 'death by a thousand cuts' (see Bottom-up approach 3.3) leading to the double whammy trap.

Bottom-up approach trap - ‘a death by a thousand cuts’



What does this mean?

Spending far too much time prototyping over and over again.

This is due to:

- 1) The lack of integration with the strategic plan - these include:
 - 1.1) Poorly defined objectives - IT try to develop their own
 - 1.2) Incomplete business knowledge - Unknown business language
- 2) Implicit strategic plan meta-models
 - 2.1) No information model
 - 2.2) No business priority process models
 - 2.3) No business knowledge model
- 3) Misunderstanding what a fact is, namely:
 - 3.1) Data = processed information
 - 3.2) Data flows
 - 3.3) Databases developed using normalisation, semantic modelling or object orientation

1) The lack of integration with the strategic plan

There has been many a discussion about the benefits and values of undertaking strategic planning. Using a search engine to undertake a search on the words the “pros and cons of strategic planning” soon reveals over 1 million references which are far too many to fully explore.

However, I needed to start somewhere so how about an [article](#) (in howstuffworks) where the author Brian Boone wrote about a pro of strategic planning. In the article Brian stated “*it gets everybody on the same page, following a precise, singular purpose that is clearly presented in writing*”. This is an implicit statement as it does not reveal the seven ‘paralysis by analysis’ traps revealed in the previous section.

IT developers do not have sufficient strategic planning deliverables to enable them to find the points of commonality. This means that integrating the strategic plan to the IT project plans is doomed to fail.

According to another article on '[Strategic Planning Insights](#)' the author reveals 3 major cons (or disadvantage). One of them is that the processes are too complex (and therefore take too long and cost too much).

It often takes 6 to 9 months before management are able to produce the first cut strategic plan, Even then the deliverables of the plan are implicit at best or missing at worst. This means that IT have to wait a long time to receive any guidance and hence end up developing their own view of the strategic plan, then develop their own project plans based on their view which may or may not integrate well with the untimely release of the official enterprise strategic plan. They then need to create multiple versions of the IT project plans thus falling into the 'death by a thousand cuts' trap.

1.1) Poorly defined objectives - IT try to develop their own

The number one trap that will cause IT planning to fail due to the 'death by a thousand cuts' is that IT management do not have a good handle on all the business' objectives. Often enough IT will short circuit the strategic planning phase of discovering the business objectives by introducing an 'Agile' approach.

One method of undertaking this task is to use some form of 'Business intelligence' approach, IT develop or use automated tools designed using either the universal modelling language (UML) or extensible mark-up language (XML).

All these tools are complex to use, take a great deal of time to master and cost a great deal of money. Nevertheless senior managers are persuaded by IT management that these tools are imperative and that they can be adapted for use in the strategic planning phase. Hence it now means that senior management have to become knowledgeable of the IT jargon and learn how to navigate their way through the applications.

1.2) Incomplete business knowledge - Unknown business language

Business knowledge has long been missing from strategic plan. The reason for this is that not only do senior management misunderstand the term 'knowledge' but also that IT misdefines the word. Business managers often try to use story telling as the means of imparting business knowledge. IT then tries to take these stories and turn them into computer systems. Whilst this may work well in movie industry, it has no place in the logical world of computing.

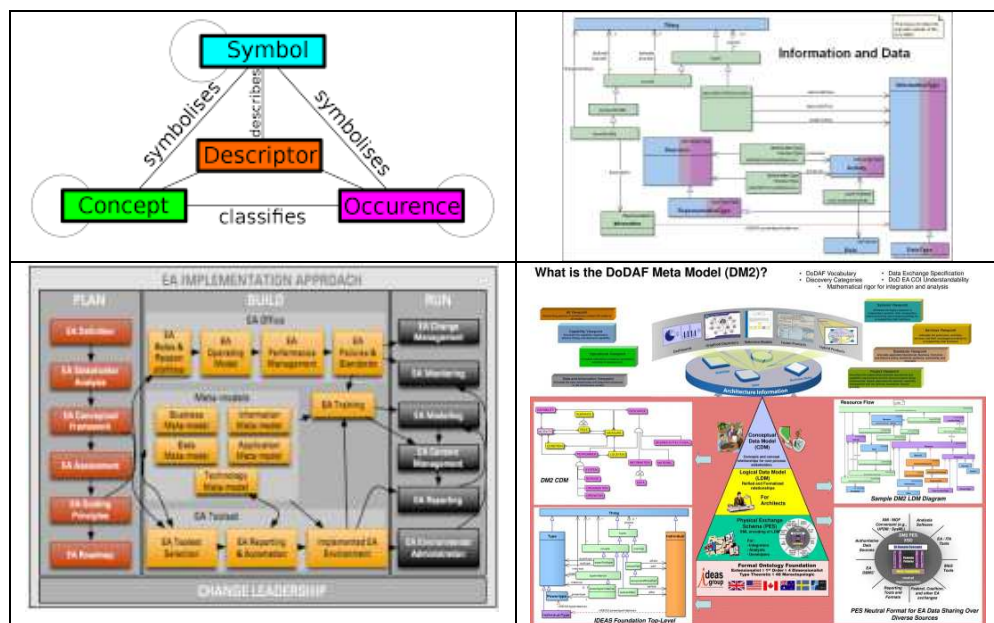
2) Implicit strategic plan meta-models

Show and tell is often used to try to explain complex problems by breaking the complex item into simpler terms. In the case physical objects this is a tried and tested approach, however when it comes to a business, the use of implicit strategic models to try to convey the plan often leads to IT misinterpreting the ideas contained in the models and hence having to spend time trying to evaluate and re-evaluate the models as they have a habit of being in continual change mode.

2.1) No information model

The first part of this trap is not understanding what information is and spending a great deal of time experimenting with different views of several IT specialists.

Here are but a few of what IT specialists view an [information model](#) looks like, however the trap is that these models do not represent the fundamental anatomy of information.



It is this thoroughly misunderstanding as to what ‘information’ is that triggers this trap. I will explain this in the next section (point 3.1).

2.2) No business priority process models

Due to the fact that the strategic planning practitioners are paralysed by lack of producing explicit deliverables (most notably the strategic and tactical programs), IT project managers take it upon themselves to create project plans which they think the business wants (the ancillary systems) rather than needs

(core systems). A great number of IT project managers have a business background of so they try to mimic what they think the projects ought to be rather than knowing. The trap then is trying to integrate the IT project plans with the business strategic plans.

2.3) No business knowledge model

Business ‘knowledge’ is one of the biggest misunderstood concepts of all the traps. The capability of developing a business model requires a mixture of business acumen and technical expertise, especially in the field of [set theory](#) in computational mathematics. It is therefore easier for business practitioners to abrogate the responsibility of trying to handle business knowledge to the IT data modelling experts in the hope that a data model will replace the need for a ‘knowledge’ model.

To overcome this problem IT data modelling experts either develop an artifact called the “conceptual data model” or develop stories in an attempt to relay the business ‘knowledge’.

Conceptual data model

This is an oxymoron (“a figure of speech in which apparently contradictory terms appear in conjunction for example ‘Cruel to be kind’) because putting the two words like ‘conceptual’ (which means relating to or based on mental abstract ideas) and ‘data’ (meaning logical facts) makes no sense at all. A concept may or may not have anything to do with logic and is therefore only ever likely to produce an implicit deliverable.

Story telling

Developing a story is an attempt to uncover business knowledge id fraught with dangers. Firstly because story telling is ostensibly used in a cultural and social context and secondly, because they are the basis of movies and theatrical productions.

3) Misunderstanding what a fact is

This brings me to the traps set by not understanding what a fact is. But before I tackle the 3 traps leading to ‘a death by 1,000 cuts’ I will first address the issue of what a fact is.

By definition a fact is “A piece of information about circumstances that exist or events that have occurred”. There are a number of synonyms that need to be uncovered which will prove that a ‘fact’ and datum are interchangeable.

Synonyms for the word fact are:

case	experience	matter
evidence	law	

How are a ‘fact’ and ‘datum’ related? By definition a ‘datum’ is “An item of factual information derived from measurement or research”. Its synonyms are

accomplishment	evidence	performance
action	experience	phenomenon
case	factor	statistic
circumstance	incident	
data	information	

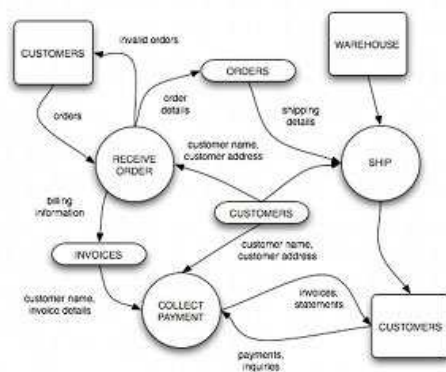
From the list of synonyms it can be clearly seen that a ‘fact’ and a ‘datum’ are synonymous (evidence and experience). It is also clear that the word ‘information’ in both definitions indicates a conflict with the word ‘knowledge’ (see point 3.3 in the top-down trap).

3.1) Data = processed information

Having proven that information is more than ‘data’, knowledge and strategies, ‘data’ can no longer be regarded as processed ‘information’. To continue this assertion will only exacerbate the trap by continually prototyping databases in an attempt to process every piece of business information.

For completeness sake, I assert that information is one of the [3 meta-models](#) that is designed to help avoid this or any trap.

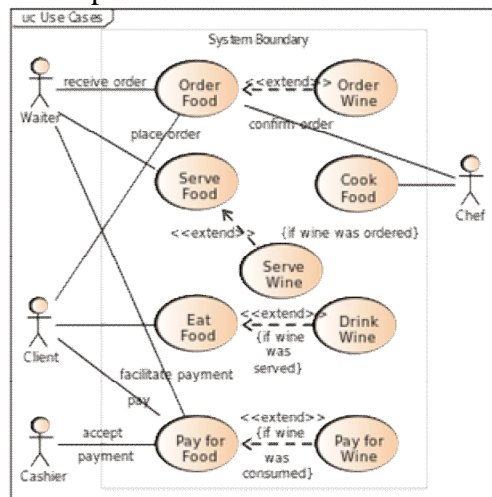
3.2) Data flows



In the 1970s, Larry Constantine, the original developer of structured design, proposed data flow diagrams as a practical technique based on Martin and Estrin's "Data Flow Graph" model of computation.

A logical DFD was meant to show how data flowed through a system. The problem with this approach is that unless the system is thoroughly defined, DFDs are next to useless and the 'death by 1,000 cuts' will be sprung.

In 1986, Ivar Jacobson first formulated textual, structural, and visual modeling techniques for specifying use cases. In 1992 his co-authored book *Object-Oriented Software Engineering - A Use Case Driven Approach* helped to popularize the technique for capturing functional requirements, especially in software development.



Use cases, like DFDs require thorough knowledge of the system otherwise they too are next to useless.

The hours spent drawing and redrawing either type of approach triggers the trap.

3.3) Databases developed using normalisation, semantic modelling or object orientation

Database design is probably the most crucial step in IT project planning yet the approaches available have exacerbated the problems and are the prime contributor to the trap of a 'death by 1,000 cuts'.

The majority of today's databases are (or were) designed using either a form of networked objects ([Codasy1](#)), hierarchies ([D/L1](#), [IMS](#)), flat files (rows and columns) or networks ([SQL](#), [DB2](#)).

According to my research the pioneer of database theory was [John von Neumann](#) (1903 – 1957 a mathematician) and largely developed around set theory, however, the theory could not be implemented until the advances in computing of the 1960s, after his death.

Prior to [Edgar Codd's](#) (1923 – 2003, a computer scientist who studied mathematics and chemistry) major work on normalisation (1960 to 1970), databases were designed more along the lines of trial and error. With the time it took and the cost of compiling and testing programs, most designs had to be 'set in stone' early on in the project life cycle and were hardly ever allowed to change. In most cases systems designers and programmers were forced to extract data from the production databases, to either a) data mine directly or b) create a subset of their own against which operatives could then manage and thus produce the required results. This worked fine until the production databases underwent any change or had to be re-extracted and realigned with the subsystems databases, all very time consuming, costly messy and prone to errors.

Normalisation

Normalisation techniques gave some formalisation to the 'art' of database design. However, in most cases, a third normal form (the optimal design) relational data base had performance problems so they had to be optimized. Under-normalization caused excessive repetition of data while over-normalization caused excessive joins across too many tables. Both of them will result in even worse performance.

The trap that every database designer fall into is that according to Codd, every attribute in every table depends upon (is controlled by or is determined by) its relationship to the primary key. As the primary key is an artificially created attribute that ensures the uniqueness of every record in the table how certain can anyone be that a natural attribute is directly related to the primary key. This is enough proof that normalisation is suspect.

Semantic modelling

By definition semantic means 'Of or relating to meaning or the study of meaning'.

According to the Wikipedia:

“A semantic data model in [software engineering](#) has various meanings:

- 1. It is a [conceptual data model](#) in which semantic information is included. This means that the model describes the meaning of its instances. Such a semantic [data model](#) is an abstraction that defines how the stored [symbols](#) (the instance data) relate to the real world*

2. *It is a conceptual data model that includes the capability to express information that enables parties to the information exchange to interpret meaning (semantics) from the instances, without the need to know the meta-model”*

In point 2.3, where I discuss the No business knowledge model trap, I have already shown that the ‘conceptual data model’ to be an oxymoron. Hence the trap is sprung when trying to develop a database using this approach.

Object orientation

Object orientation can be used to design databases. To understand how this is done you need to understand the philosophy behind OODB design.

Primarily OO involves isolating data in semi independent modules in order to promote high software development productivity.

The trap here is similar to those I outlined in Point 3, hence effectively the trap of a ‘death by 1,000 cuts’ has already been sprung by choosing to use the OO database design approach.

Alternative to the 3

There is a better way, one that will avoid any of the above traps from being activated. That alternative is ‘knowledge modelling’ but more about that in Books 4 and 5.

So you think you know how to plan but do you know how to avoid the traps? Or; Are you making it up as you go along?

How to avoid the traps

The real secret to avoiding a trap is to understand the planning mechanism and being able to locate the weaknesses within the planning cycle. To achieve this you will have to understand the symptoms that set the trap and the causes that trigger the trap.

To understand this I will need to introduce you to the different types of planning genres. I could write an entire book on this subject, but that would only distract you from understanding the symptoms produced by the traps (the subject of Chapter 5) and the main causes that underpin the symptoms, however, unless you understand the history of the 2 planning mechanisms, you may well miss the subtleties of the traps.