



# White Paper

## IT is from Flatland, Business is from Spaceland

*The relationship between Business and IT has been a source of concern for as long as IT exists. The relationship used to be dominated by the God-like IT department who knew what was good for the Business. IT inevitably fell from its pedestal and adopted the sub-dominant position of "Just tell us what to do" (with the implication that it's the business' fault when it goes wrong). The challenge is to develop a mature relationship in which both parties play their part.*

*This paper addresses the relationship between Business and IT using concepts inspired by*

*On Dialogue by David Bohm*

*Flatland: A Romance of Many Dimensions by Edwin Abbott,*

*Stuart Wray's work on Programming Aptitude,*

*Men are from Mars, Women are from Venus by John Gray,*

*Kirk and Spock of Star Trek fame,*

*Herbert Simon's concept of Bounded Rationality,*

*Daniel Ofman's Core Quadrants,*

*Paul Wilkinson's ABC of ICT and*

*The Business IT Alignment Illusion, by Remko van der Pols & Mark Smalley.*

*The main premise of this paper is that IT people live in fewer dimensions than business people, have differing core values and therefore have difficulty understanding business' extra dimensions, resulting in unsatisfactory "digital solutions for an analogue world".*

Mark Smalley, 23 March 2010



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## Introduction

### Normal Judgement is Suspended

This paper introduces some concepts that you may find unusual or disconcerting. Possibly condescending. Particularly if you belong to the IT community because I postulate the notion of IT people living in fewer dimensions than business people. Although 'fewer' is often automatically associated with 'worse', it is not my intention to make a moral judgment, simply to proffer an explanation for a hoary problem.

Your immediate reaction may be one of dismissal but I invite you to suspend judgment for a while and give yourself the opportunity to reflect on these ideas.

In later life, David Bohm, the twentieth century quantum physicist, proposed a solution, known as the Bohm Dialogue, as a remedy for societal problems. One of his central notions was suspension of judgment in order to achieve a more balanced point of view. He did not encourage passive acceptance to statements that people make but a critical exploration of one's own reactions.

I encourage you to adopt this approach and consider why, after half a century of using IT, the relationship between business and IT still not what it should be. Feel free, after due consideration, to reject my thoughts and replace with better ones.

#### Dialogue – A Proposal

*David Bohm, Donald Factor  
and Peter Garrett, 1991*

On suspension:

"Suspension of thoughts, impulses, judgments, etc., lies at the very heart of Dialogue. It is one of its most important new aspects. It is not easily grasped because the activity is both unfamiliar and subtle.

Suspension involves attention, listening and looking and is essential to exploration. Speaking is necessary, of course, for without it there would be little in the Dialogue to explore, But the actual process of exploration takes place during listening -- not only to others but to oneself.

Suspension involves exposing your reactions, impulses, feelings and opinions in such a way that they can be seen and felt within your own psyche and also be reflected back by others in the group. It does not mean repressing or suppressing or, even, postponing them. It means, simply, giving them your serious attention so that their structures can be noticed while they are actually taking place."



## Toilet Paper & the Systemizing Quotient

It seems like an odd topic to start an exploration of the relationship between business and IT but bear with me for a while. How do you hang a roll of toilet paper? With the flap at the front or the flap against the wall? Take a straw poll and you'll discover that IT people have a very strong preference for the flap on the outside. The explanation is that IT people think about the 'system' behind things and it seems logical to hang the paper on the outside because it's easier to grasp and tear off. People without an IT or other technical background (let's call them 'normal people' for the sake of argument) tend not to think about these aspects of life – something incomprehensible for IT people.

This topic is a subject of much debate, including postings on internet sites such as:

- Essential Life Lesson #1: Over is Right, Under is Wrong
- God made toilet paper to roll only one way.

Similar exercises involve squeezing toothpaste and cracking boiled eggs.

This interest with systemizing or obsession as normal people call it is expressed by the Systemizing Quotient (SQ), a formal measure of the drive to analyse and explore a system, to extract underlying rules that govern the behaviour of a system; and the drive to construct systems. Systemizing Quotient is often used in combination with the Empathy Quotient (EQ), a measurement of how easily you pick up on other people's feelings and how strongly you are affected by other people's feelings.

People with  $EQ > SQ$  prefer interacting with other people, who they find intuitively easy to understand compared with mechanisms and machinery, which they find mysterious, cold and soulless.

People with  $SQ > EQ$  prefer orderly systems of objects, which they find intuitively easy to understand compared with people, who they find fickle, confusing and worrisome.

Stuart Wray in 'SQ Minus EQ can Predict Programming Aptitude' has researched the degree to which Systemizing Quotient and Empathy Quotient can predict programming aptitude and has established that the difference between SQ and EQ is a strong indicator of programming ability.

My wife can confirm this research. Whenever I introduce her to an associate of mine in the IT business she often remarks "Don't you know anybody normal?". The fact that she says this after the person in question is out of earshot confirms her high Empathy Quotient. She can't program for the life of her.

### The Expert Programmer

*The popular image of an expert programmer is a man (seldom a woman), careless of physical appearance, socially inept, with narrow and intense interests and a peculiarly literal way of interpreting spoken or written statements*

*SQ Minus EQ can Predict Programming Aptitude,  
Stuart Wray*



## Ladies and gentlemen

Speaking of women takes us to the next topic in our build-up to the point of this paper, the differences between men and women. In his popular work 'Men are from Mars, Women are from Venus', John Gray illustrates various differences such as the following from the first couple of chapters:

- It is important to remember that men and women have reciprocally different natures. Men and women need to appreciate these differences, and cease expecting each other to act and feel the way they do.
- Men love to have their abilities recognised and appreciated, and hate to have them scorned or ignored; women love to have their feelings recognised and appreciated, and hate to have them scorned or ignored.
- Men like to work on their own, and exercise their abilities by solving problems quickly and singlehandedly; women like to co-operate, and exercise their feelings through interactive communication with one another.
- Men value solutions, and view unsolicited assistance as undermining their effort to solve problems alone; women value assistance, and view unsolicited solutions as undermining their effort to proceed interactively.
- Men desire that their solutions will be appreciated; women desire that their assistance will be appreciated.
- When men do communicate, they like to get to the point, and generally only want to listen if they feel the conversation has a point; women enjoy talking for its own sake, and are happy to listen unconditionally.

### **Men are from Mars, Women are from Venus**

*John Gray, 1992*

This best seller offers many suggestions for improving men-women relationships in couples by understanding the communication style and emotional needs of the opposite gender. It spawned a series of follow-on books expanding on specific situations.

The book asserts the notion that men and women are as different as beings from other planets. Gray adopts this metaphor as the central theme of all his books and seminars, likening men and women to the classical Roman god Mars and goddess Venus as ideal types.

The point is made: there are fundamental differences that have to be recognized and respected if a decent relationship's to be had. How times have changed, as illustrated by a quote from a 1950's high school home economics textbook, preparing girls for married life: "Make him comfortable: Have him lean back in a comfortable chair or suggest he lie down in the bedroom. Have a drink ready for him. Arrange his pillow and offer to take off his shoes. Speak in a low, soft, soothing and pleasant voice. Allow him to relax and unwind."



“IT is technical, Business is political:  
51% is enough for the business,  
but you need 100% for IT”  
*(reader’s comment)*

## Flatlanders and Spacelanders

In his story about various beings that exist in worlds with differing numbers of dimensions, Edwin Abbott makes the point that it is extremely difficult for beings in a world with  $X$  dimensions to imagine the existence of a world with more than  $X$  dimensions, let alone understand what these extra dimensions are. Conversely, it is easy for the  $X$ -dimensional beings to imagine a world with less than  $X$  dimensions and, although slightly more difficult, to understand what it must be like to live in such a world. The five minute video ‘Dr. Quantum Visits Flatland’, taken from the film ‘What the Bleep!?: Down the Rabbit Hole’ and freely available from YouTube and other sources, illustrates these concepts quite succinctly.

## Similarities between Differences

Thank you for bearing with me during this rambling introduction. I hope you’re now receptive to the idea that – assuming that you needed persuading – there may be similarities between the differences between Flatlanders and Spacelanders, between men and women and, to finally get where we want to be, between IT people and normal people. I’m going to start calling normal people ‘business people’ from now on.

### **Flatland: A Romance of Many Dimensions**

*Edwin A. Abbott, 1884*

The story is about a two-dimensional world referred to as Flatland which is occupied by geometric figures. The narrator is a humble Square, who guides us through some of the implications of life in two dimensions. The square has a dream about a visit to a one-dimensional world (Lineland). He attempts to convince the realm's ignorant monarch of a second dimension but finds that it is essentially impossible to make him see outside of his eternally straight line. The narrator is then visited by a three-dimensional sphere, which he cannot comprehend until he sees Spaceland for himself. This sphere visits Flatland at the turn of each millennium to introduce a new apostle to the idea of a third dimension in the hopes of eventually educating the population of Flatland of the existence of Spaceland. From the safety of Spaceland, they are able to observe the leaders of Flatland secretly acknowledging the existence of the sphere and prescribing the silencing of anyone found preaching the truth of Spaceland and the third dimension. After this proclamation is made, many witnesses are massacred or imprisoned.



“Seems like collaboration between autistics and schizoids”  
(reader’s comment)

## The Business – IT Relationship

This part of the paper deals with differences in various areas. For the sake of clarity and simplicity, an extreme standpoint has been adopted, ignoring real life nuances. Many statements should be prefaced by “often”, “many” etc but this spoils a good read, so please read between the lines.

### Perfection versus Imperfection

IT people value consistent, rational, logical solutions to problems. They want to create something that’s perfect. A mosque or cathedral that will stand for 1000 years.

Business people just want something that works. They’re used to living in an imperfect world in which compromises are daily fare.

To quote a couple of esteemed associates on the subject of utopia versus survival:

- “IT people aim for perfection, business people live in an imperfect world”  
Remko van der Pols, The Lifecycle Company, The Netherlands
- “Digital solutions for an analogue world”, Marc de Bruyn, Sogeti, Belgium

### The relative value of IT

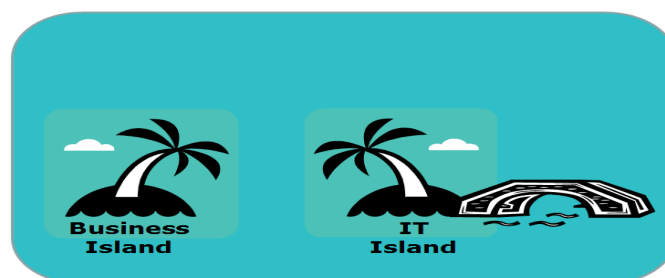
IT people assume that the business should be investing more in IT, taking IT more seriously.

Business people have other things on their mind. If IT was important they’d do more with it. They don’t so it’s not as important as other stuff.

So what’s IT worrying about? Who’s paying for this stuff?

### Building bridges

It’s evident that there’s a chasm between business and IT but the question is what it looks like. The gut reaction of IT people is to start thinking and talking about strategic information planning, governance structures etc. The business just wants somebody who understands them and is willing to negotiate and compromise on a solution. So if IT’s building a bridge, it’s probably in the wrong direction.

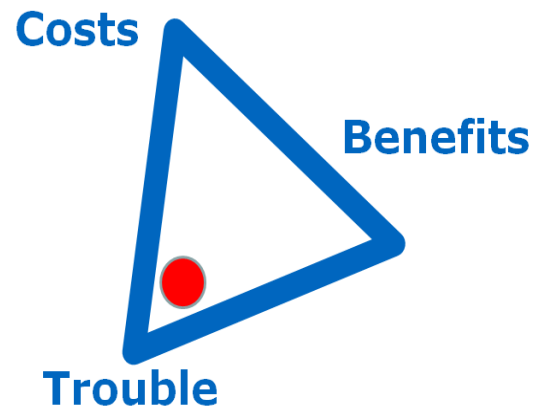




“If IT is so logical, why can’t they understand that the business doesn’t always have a 140+ IQ?”  
*(reader’s comment)*

## Decision making

When it comes to decision making, IT people assume that this is a rational process, diligently weighing up the quantified pro’s and con’s and coming to a justifiable outcome. The fact that business people have irrational issues to consider – “what will the wife say?” – doesn’t occur to the poor souls. Remko van der Pols calls this the Trouble Triangle in which, alongside the rational good / cheap / fast considerations, there’s a place for the irrational stuff.



## IT’s logical, Captain

Star Trek’s Mr. Spock embodies the IT’er. Rational, emotionally under-cooled and above all, logical. Captain Kirk’s behaviour puzzles Spock. His irrationality and intuitive reactions are on frequencies beyond Spock’s reach. Similarly, IT people often can’t understand why business people do what they do. Worse than that, they also can’t accept it and assume it’s an aberration that doesn’t need to be considered.

## Bounded rationality and heuristic shortcuts

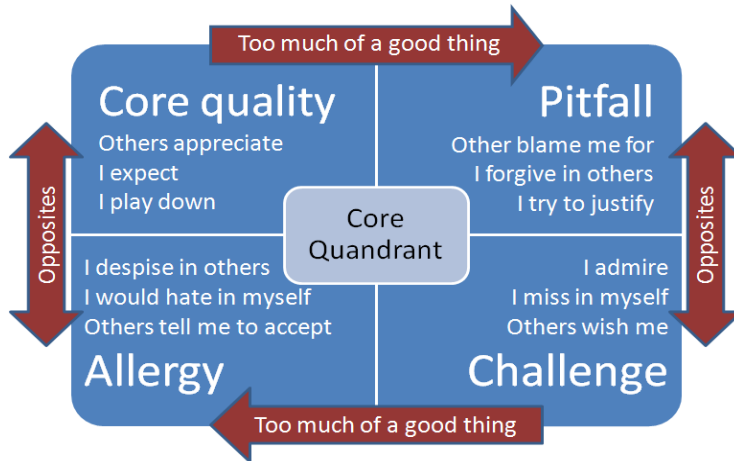
There is some serious thinking behind irrational and intuitive decision-making, in which the term ‘bounded rationality’ often occurs. The economist Herbert Simon coined the term that refers to the inability of people – Spock excepted – to process all the variables associated with complex, real-life, situations. So they take a shortcut and choose a satisfactory solution rather than an optimal one. Experience and heuristics play an important role in avoiding prohibitively high deliberation costs.



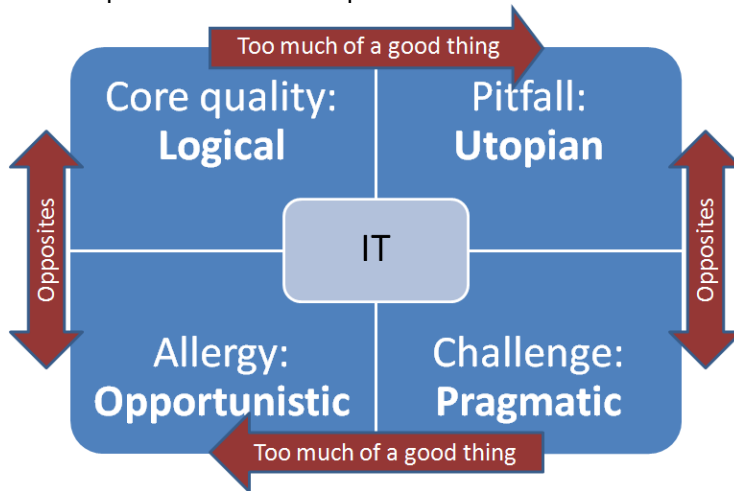


## Core Quadrants

Daniel Ofman's notion of Core Quadrants offers a useful way of illustrating how business and IT people clash. The sidebar elaborates on this powerful concept.



A core quadrant for an IT person could look like this.



The core quality is logical behaviour, that could turn into a utopian pitfall if it gets out of hand. This needs a bit of pragmatism as a challenge to restrain the pitfall. Finally the allergy: opportunism usually gets an IT'ers coming out in spots.

### Core Quadrants

Daniel Ofman's theory on core quadrants provides a method for identifying and strengthening each individual's positive characteristics. Core quadrants comprise core qualities, pitfalls, challenges and allergies.

**Core qualities** are an individual's specific strength, something he is good at, or for which he is often praised by others.

**Pitfalls** are a transformation of a core quality; not the opposite, but 'too much of a good thing'. The positive aspect goes too far, turning a strength into a weakness.

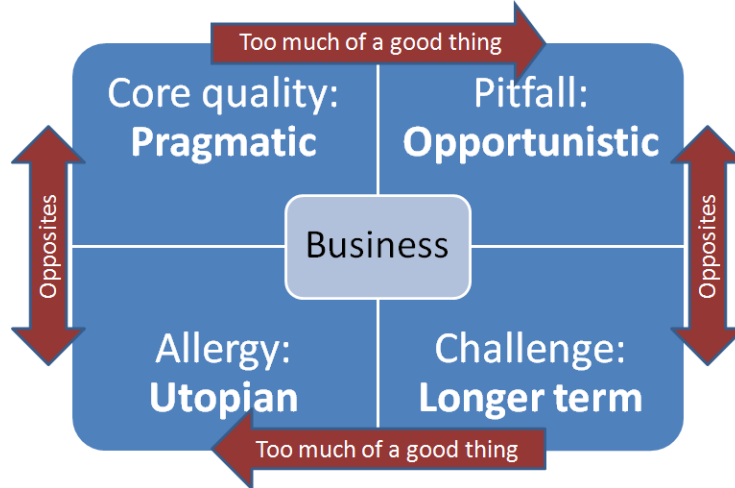
**Challenges** are the positive opposite of a pitfall. Having identified the negative, transformed behaviour, one can start looking for the challenge. The core quality and the challenge are complementary qualities. The objective is to strike a balance.

The core qualities can also be used to identify potential conflicts with the environment. People tend to be allergic to too much of their own challenge in other persons. The **allergy** is 'too much of a good thing' of the challenge, as well as the negative opposite of the core quality.



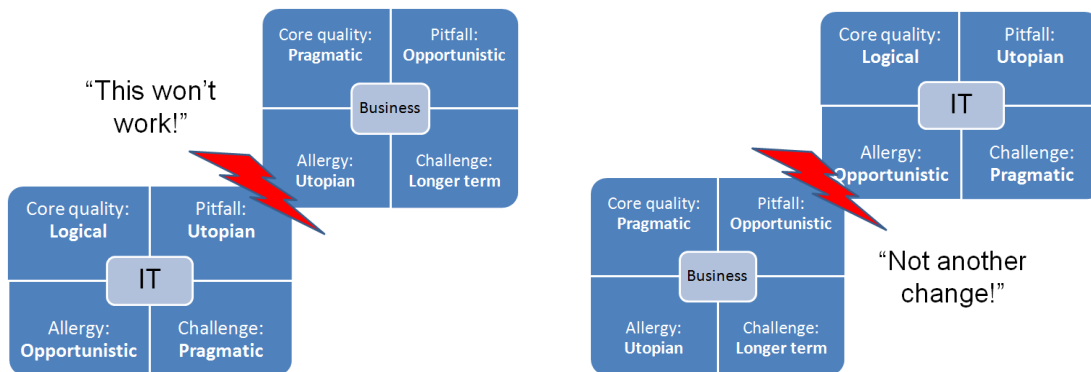
"A painful daily reality"  
(reader's comment)

A business person, on the other hand, has different qualities.



Assuming pragmatism and survival are core qualities, opportunistic behaviour would be a pitfall. A longer term, more balanced perspective would keep this within limits. An allergy is unrealistic, utopian behaviour.

The confrontation between these two characters probably comes as no surprise.



There are two potential clashes. IT offers a perfect solution for an imperfect world and the business immediately identifies the shortcomings. On the other hand, continuous chopping and changing of the business gets up the IT guy's nose.

So we seem to have unbridgeable core values.

## Attitude, behaviour and culture

This brings us along nicely to the soft side of IT. In the past 10 years or so many IT organizations have adopted 'best practice' frameworks such as ITIL to bring IT under control. Many organizations have failed to realize the expected benefits of these frameworks. Why? Because of ABC issues. ABC presents a considerable business risk.



“IT is often logically correct but leaves out dimensions that they can’t understand”  
(reader’s comment)

IT people have a tendency to focus on the ‘hard’ stuff of organizational change like processes and formal roles and responsibilities, while the weakest link seems to be in the personal and inter-personal domain. As Wray postulated, IT people have a natural aversion for inter-personal aspects and therefore tend towards more comfortable constructs. If your only tool is systemizing, everything looks like a system.

Developing awareness and competences in the soft skills is acknowledged as currently being key for IT to step up to a higher level of effectiveness.

## Relevant irrationalities and irrelevant rationalities

Referring back to Abbott’s book on beings in worlds of different numbers of dimensions, a case can be made for IT living in Lineland or – let’s be generous – Flatland. In this compact world they create perfect, rational, logical solutions.

The trouble is that the solutions are supposed to fit into a three-dimensional Spaceland inhabited by business people. And that’s where it goes wrong. Because it’s difficult for beings in a world with X dimensions to imagine the existence of a world with more than X dimensions, let alone understand what these extra dimensions are. So IT only comprehends part of the situation for which a solution is required. Because they excel in logic, IT focuses on the logical aspects on the business domain, brushing aside the irrationalities because (a) they can’t fathom them out and (b) they can’t turn irrationalities into code anyway.

From a business point of view, the solution disappoints. Although technically bling bling, it doesn’t tie into the practicalities of daily life.

The bottom line is that IT just doesn’t deliver the right goods. As Sogeti’s Marc de Bruyn most eloquently put it: “Digital solutions for an analogue world”.

Starting to move forward into how to solve this problem, and realizing that it is easy for X-dimensional beings to imagine a world with less than X dimensions, it should be easier for multi-dimensional business beings to understand lesser-dimensional IT beings than vice versa. So the ball seems to be in their court. We’ll get back to this later.

### Attitude, Behaviour and Culture (ABC)

ABC of ICT, Paul Wilkinson

Attitude is what people think and feel. It is their demeanour and how they react to the world about them. How they react to a change initiative, a colleague or a customer.  
Example: somebody thinking “The users are *always* complaining....just ignore them they will soon go away!”

Behaviour is what people do. Behaviour is influenced by attitude and by the culture of the organization.

Example: somebody saying they will follow the procedures but not doing it.

Culture can be described as the accepted ways of working within an organization, the values and standards that people find as normal.  
Example: blame culture. Everybody points the finger of blame and mistakes are punished.

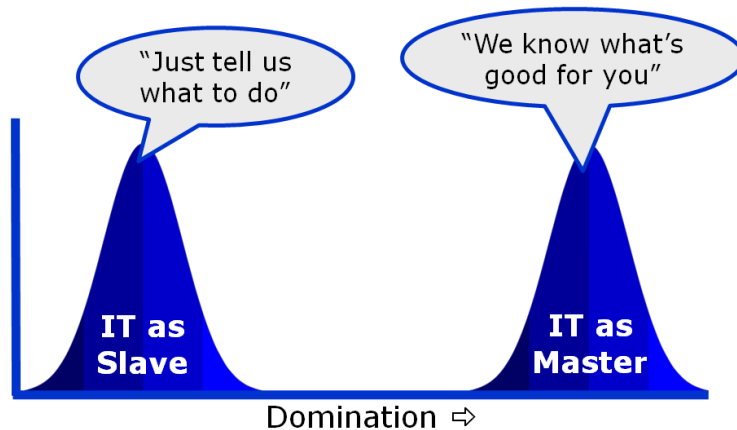


“Business has got to lead IT”  
(reader’s comment)

“It’s up to IT to reach out to the business”  
(reader’s comment)

## SM Role Play

The relationship between business and IT is a complex one. From an IT perspective, and completely consistent with their binary background, IT people seem to be only capable of assuming two roles. From the fifties to the early seventies, the first phase of automation, they started off in a dominant “Business people, we know what’s good for you” role that, for a while, was accepted by the business who were in awe of these mysterious men in white coats brandishing punch cards and flow charts with an impressive number of interconnected (two dimensional) shapes. Then, as Van der Pols points out, ‘IT as a God’ fell from its pedestal and became a fallen angel. This radically changed the relationship with the business and IT quickly traded its dominant position for a sub-dominant role with consistent attitude, behaviour and culture. The main message was “Business people, just tell us what you want us to do” with the implicit subtext “then it’s your fault when it goes wrong”. And boy, did it go wrong.



This role change from master-slave to slave-master seems to have baffled the business. Although it’s politically handy to have a willing victim to blame, when you really want something done you’ve got to establish a decent working relationship. And as IT is slowly but surely being recognised not only as a significant production factor but as an important innovation instrument, the business more often than not wants a solution. And quick.

It’s clear that the business is in the lead. Not only because they should be but also because IT has retreated into the slave-master role. So what are the business responsibilities? In a nutshell:

- Deciding how important IT is and setting appropriate policy
- Deciding who is responsible for what
- Specifying what functionality is needed
- Acquiring IT systems and services and managing suppliers
- Ensuring effective adoption and use of IT systems
- Evaluating the above and initiating improvements

This seems straightforward enough but in practice, the business is currently struggling with their role. It looks like we’ve got a subservient slave and a muddling master.



## Recommendations

### Ten vows for a better relationship

So that's the analysis: IT people live in fewer dimensions than business people, have differing core values and therefore have difficulty understanding business' extra dimensions, resulting in unsatisfactory "digital solutions for an analogue world". And now the obvious next question – what can we do to improve the relationship?

Here are ten suggestions for consideration, five for the business and five for IT.

#### Business to IT

1. I will grasp IT by the horns. It may be an unpalatable truth but the bottom line is that it's my responsibility and blaming the IT department won't solve the problem. I'll decide who's responsible for what.
2. I'll invest in capabilities to fulfil my side of the bargain. I'll get professional help. I'm sure it's worth it.
3. I'll not just change IT to fit my current business processes and business models but consider changing both at the same time. That's how I'll get optimal value.
4. IT people aren't all bad. In fact they're mostly all good. Dedicated people who just have difficulty in accepting that you don't want a cathedral that'll last a thousand years, just basic accommodation for the night. So I'll tell them as explicitly as possible what I want.
5. I'll encourage them to share their knowledge about various options for solving a problem and why they prefer the one direction over another. Their misgivings may seem off the mark but I'll think about them – they often have valuable insights.



## IT to business

0. I'll accept that the business is the customer. And that demand driven means DEMAND DRIVEN. I'll accept the consequence that this may lead to segmented and fragmented solutions. I'll communicate the consequences: they pay, so it's their say.
1. I realise that business people are different from me and, although I may not always exactly understand what makes them tick, I'll take their quirky behaviour seriously.
2. I'll offer Power Assisted Steering. I'll resist grabbing the steering wheel when I think they're incompetent but will offer them power assistance in the form of pro's and con's for the various alternatives available.
3. I realize that business people have a higher empathising quotient so I'll invest in this aspect because this will help to develop the relationship.
4. I'll think in terms of essentials rather than perfect solutions. I'll share my doubts about the perceived shortcomings of this compromise – it may not be the problem I assume it to be.

## T T T T T

Some final advice to both parties. For more than 90% of the time you live in your own world while the other party is guessing what you're thinking and doing.

Take The Time To Talk.





## Acknowledgements

Many people contributed directly and indirectly, knowingly and unknowingly, to this paper. Remko van der Pols deserves all the credits for postulating the basic premise of uni-dimensional IT versus multi-dimensional business while we were creating a presentation for a conference in Belgium in 2010. I have merely embellished it and drawn parallels with other areas. I am grateful to Ben Loos for his astute comments and references to academic research that I would otherwise never have discovered. Marlies Smalley was kind enough to read through it and make some suggestions.

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- Relevant irrationalities and irrelevant rationalities
- SM Role Play



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Mark Smalley is employed as a Principal Consultant by Capgemini in the Netherlands and also works for the not-for-profit ASL BiSL Foundation, where he is Director of International Affairs, promoting best practices in management of information systems around the globe. He publishes and speaks about application management and related topics (ASL, BiSL, IT Governance, Business IT Alignment) on a regular basis and has reached out to several thousand people in more than ten countries in four continents. He also lectures in Brussels, Hangzhou and Rotterdam and contributes to EXIN certification material.

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