

## Information Management Deficiency Syndrome

Poor information management is one of the biggest barriers to success in today's commercial world, but organisations are still failing to spot the telltale signs. Jon Evans looks at some of the most common symptoms.



Few people reading this article would question the importance of effective information management. Today's proliferation of data-centric systems coupled with a climate of ever increasing regulatory compliance puts it at the very top of every organisation's agenda. Or so you'd think...

I suspect one half of the problem is ownership. Information management isn't an easy box to label – is it the responsibility of the business or the IT department? And even if you manage to sort that one out, finding a suitable sponsor is an even trickier challenge. Let's face it, you won't have a queue of senior execs lining up to untangle the years of information mismanagement.

The other half of the problem is inexperience. Over the years, I've encountered a number of organisations that failed to realise they had an information management problem (or indeed that information *needed* to be managed). Often, they knew something wasn't "right" – perhaps they were struggling to meet their statutory reporting requirements – but just as some people avoid visiting their doctor, they preferred to battle on until their business got really sick.

So how do we know if we have an information management problem? What are the signs we should be looking for? Just in case you're asking yourself these questions, I thought I'd share with you a few of the classic symptoms of IMDS – Information Management Deficiency Syndrome.

*Now, more than ever, the accuracy, integrity and consistency of information are all key when it comes to making important business decisions – across every type of organisation.*

### #1 – Data model? What data model?

*"We don't bother producing data models – it's a waste of time when our database can easily generate a schema if we need one..."*

It never fails to surprise me how many IT professionals struggle to think beyond physical database schemas – arguably the least important of all data models. With this in mind, perhaps I shouldn't be at all surprised that most business professionals run a mile the minute anyone mentions the iniquitous "data model".

It's easy to see where the problem lies – it's primarily one of communication (or lack of it). Without higher-level data models (logical, conceptual), there can be no common understanding of how the key business entities inter-relate. And if you don't have a clear picture of your current landscape, how will you cope when change inevitably happens?

In his recent 2-part article, *Data Modelling is not just for DBMSs*, Chris Bradley explored the history of data modelling and how this discipline can now be applied to current challenges such as service oriented architectures (SOAs). Surely, now is the time for organisations to acknowledge data modelling as an essential part of good information management.

### #2 – Don't believe everything you read

*"To be honest, I'm not 100% sure how many mothers gave birth in our maternity unit last year – this report says at least one of them was an 88 year old man..."*

When I first started working in the area of health informatics three years ago, I was surprised to learn just how many senior citizens are giving birth across the country. I was even more surprised that some of our hospitals are now managing to discharge patients before they are even admitted!!!

But poor data quality isn't a laughing matter. Within the health service, it's a very serious issue. Not only does it hinder the planning and resourcing of future healthcare, but under the Payment by Results (PbR) regime it also directly impacts the reimbursement hospitals receive for the patient care they provide.

Now, more than ever, the accuracy, integrity and consistency of information are all key when it comes to making important business decisions – across every type of organisation. To use Ken Orr's celebrated words: "ultimately, poor data quality is like dirt on the windshield...at some point you either have to stop and clear the windshield or risk everything".

### #3 – Multiple personality disorder

*"I have a Mr Wells on the phone asking why we've sent him three identical letters for this month's promotion..."*

Duplicated reference data doesn't simply waste resources – more often than not, it leads to mistakes, ambiguities and confusion. In certain circumstances, it can even lead to financial penalties.

The problem isn't limited to customer data. A few years ago I helped a multi-national manufacturing corporation that was struggling to monitor its worldwide operations. Often the same product would be sold in numerous countries, but the use of local product codes masked this information. Solving this problem not only provided a consolidated view of sales, but also opened up the possibility of cost reductions through the optimisation of production schedules.

Mergers and acquisitions, ever increasing regulatory compliance and the move toward SOA only serve to compound the issues. The challenges will keep coming, so if you don't have a single consistent view of your organisation, how can you ever hope to manage that organisation?

**#4 – Spreadsheets, spreadsheets everywhere**

*“Where are last month’s sales figures? I’m told Bill keeps them in his own spreadsheet somewhere – but he’s away for two weeks...”*

Excel is a wonderful tool. It's hard to think of any other piece of software that has the same combination of simplicity, flexibility and power. But more than anything, it empowers people to turn data into information.

That said, you can have too much of a good thing. When Excel becomes embedded in an organisation, it comes at a price. I'm sure we've all witnessed the telltale signs: a Friday afternoon spreadsheet that suddenly

becomes the de facto sales report; multiple copies of a spreadsheet which may or may not be identical; secrecy and ring-fencing of data simply because it's my spreadsheet.

Information needs to be controlled, exploited and shared. Excel was never designed to satisfy all of these requirements. It will always have a place in any organisation (at least I hope it does), but ultimately, despite its many fine qualities, Excel is no way to run a business.

**#5 – Where's that darned report?**

*“I need a breakdown of clients by monthly spend. I can only find annual figures – and even then they're 9 months out of date!!!”*

All too often, organisations are faced with managing their key operations in a climate of poor information provision. Sure, the information is there (somewhere) but even if you manage to locate it, there's no guarantee that it will be fit for purpose. Information provides a business with feedback and control – but only if it is accurate, timely and relevant.

Consider the fuel gauge in your car. It has a very simple purpose – to stop you running out of fuel. How well would it fulfil that purpose if it was only reliable to within 10 gallons? What if it

showed the amount of fuel remaining 7 days ago? And what if it was actually showing the fuel remaining in your neighbour's car?

I'm often drawn to car analogies to explain information management issues (and with the current interest in performance “dashboards” it somehow seems appropriate). Running out of fuel is an inconvenience, but running your business off the road because you can't tell how fast you're travelling is a far more serious matter.

**#6 – Where did this figure come from?**

*“No-one seems to know where this figure came from, how it is calculated or whether it is in pounds or Euros!!!”*

It doesn't matter how carefully you store your data, if all you store is a collection of meaningless values. Data has a much more colourful personality – each instance has a definition, an origin and a history. Failing to acknowledge the importance of these extra characteristics can render data useless...or worse.

There have been a number of infamous examples where inconsistent data definitions have had drastic consequences. The metric/imperial mix up that led to the dramatic demise of NASA's

Mars Climate Orbiter (MCO) in 1999 is one of the most notable.

Back on earth (literally), the consequences of poor information management might be less spectacular, but no-one should be complacent. Understanding how data transforms through your corporate systems is no longer optional. I'm sure there were plenty of financial institutions crossing their fingers the day Sarbanes-Oxley came into force,

hoping they wouldn't suffer a similar fate to the MCO.

**So what's next?**

In a future article, I will look at the key antidotes to poor information management – the principles, processes, tools and techniques used to overcome the issues highlighted earlier. Until then it's worth remembering that half the battle is recognising that a problem exists. The symptoms are all there, but everyone is simply too preoccupied to notice. Perhaps, we're all busy looking for Bill's spreadsheet so we can publish last month's sales figures...



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*With significant information management expertise gained across a variety of sectors, Jon has most recently applied his skills in the area of health informatics. As the senior consultant within the Audit Commission's Payment by Results Data Assurance Framework, he has played a key role in the application of sophisticated statistical techniques to identify anomalies within health data. He can be reached at jon.evans@ipl.com.*