



# Stop your data going rogue

These days every digital transaction you do generates data, and chances are that data is being stored. Mobile apps, web transactions, loyalty schemes & more provide a wealth of potential information resources. But with so much data being collected, how do you stop it becoming a rogue elephant and actually apply it to inform your business? *David McNickel* investigates how business intelligence can move smart companies from average to extraordinary...



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Perhaps one of the first things to make clear in any story about business intelligence (BI) is that data, and information, are not the same thing. To wit, the dictionary defines 'data' as; 'individual facts, statistics, or items', whereas 'information' is described as; 'the meaning given to data by the way in which it is interpreted'. Apply some thought to your data, says Datamine managing director Mike Parsons, and you will get information. “Any time data is collected - and it's collected more than you think - there's a way to leverage that into understanding.” The problem is, however, that for years, deciding to actually do that has been a big ask for many companies. “Most businesses,” he says, “especially large ones, spend a zillion dollars building these IT systems and collecting huge repositories of data that they don't do anything with. If they just spent one per cent of the money they spend on IT trying to figure out what to

do with all that data - the benefits could be huge.”

So what might some of those benefits be? How about healthcare organisations forewarned about which patients are likely to relapse - thus dramatically reducing re-admittance rates, marketers slashing promotion costs while quadrupling the results of customer acquisition drives, manufacturers enhancing supply chain efficiency and eliminating out of stocks with better inventory management - or retailers promoting just the right combination of products over a holiday weekend and significantly increasing average purchases. The application of business intelligence to these types of scenarios is already an everyday occurrence and probably no surprise to anyone. But for every bread & butter deployment like those, there are plenty of BI initiatives you've probably never thought of. Take employee theft for example. If you suspect a staff member is skimming money from the till you'd probably consider a video surveillance system or

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maybe hiring a private detective to covertly keep an eye out? What you wouldn't think of is calling a business intelligence company. But rudimentary data analysis could quickly identify the thief says Parsons. "Let's say you had a nationwide chain of bars," he says. "Your till receipts will give you a whole bunch of information. And typically on any given shift, let's assume they show that 15 - 20 per cent of transactions are cash. But every time one particular bartender is working that percentage nosedives to five per cent over and over again. And as soon as they leave it goes back up to 15 or 20 per cent - you can quickly say there's something funny going on here." No cameras, no detectives - just data transformed into information.

BI is typically delivered under two broad headings - financial intelligence and customer intelligence. Referring to NZ initiatives around boosting farm intelligence to increase the value of the red meat industry, BI specialists Montage's Tony Millar points to Silver Fern Farm's 'Plate to Pasture' initiatives as a good example of 'customer intelligence' in action. "BI is driving the strategy of determining what's being grown on the farms," he says. Rather than just growing something and then trying to sell it, Millar

says Silver Fern Farms are gathering data in Europe about what customers in that market are looking for from meat at their dinner table and information generated there is being fed back to Silver Fern Farms - all the way to DNA. "It's influencing procurement right through to operations, sales and marketing," he says. "So what customers in Europe are saying they want is being applied to what's being grown on the farms - right down to the genetics of the animals." Readers considering a BI implementation should also note that while an organisation's internal data can deliver a wealth of information, if it's analysed in conjunction with external sources (like the Census, or NZ Post's postal address database), even more value can be added. Datamine's Parsons points to weather analysis as a good case in point. "We've worked for several businesses who've said 'what's a sunny day worth to us, or what does a rainy day cost us?' All can be revealed he says, and drive decisions such as stocking and staffing.

### Rogue data

So how do you know if your business has plenty of data, but lacks information? Both Montage's Millar and



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**Michael Whitehead**, Wherescape

Wherescape (Auckland based data warehousing experts) founder Michael Whitehead identifies the clichéd 'DIY' data analysis scenario that often prevails in NZ business as a good indication. When Ralph Norris took over at Air NZ, for example, he noted there were 15,000 Access databases spread around the company, "you begin to wonder what's the value of the data that's being held in those databases," he said). Basically it goes like this – a manager asks IT to run a query. Results are received and taken away to be plugged into the manager's personal Access database or Excel spreadsheet. This spreadsheet is then manipulated in ways the manager thinks are appropriate and then passed on to someone else, who does their own work on it as well. "It goes from one spreadsheet to another to another," says Whitehead. "Now it's great that people are using the data for their own purposes, but the organisation has lost a bunch of control and doesn't know what's happening at each of those steps." You can't blame people for doing this says Millar, as they're not getting the 'information' they need from their existing systems. "IT people understand data and how to run queries," he says, "but they inherently don't understand what information is. But business people can't make decisions from data – they need consolidated integrated information." To achieve this they end up developing their own BI in their own 'systems' with an Excel spreadsheet. They add a bit of code here and there and suddenly there are ten different reports. Whitehead calls this scenario "going rogue" and says the result can often be a bunch of managers turning up at a meeting – all with different information. It's something he's sworn to get

under control. "We've always said we would promise this industry that when you turn up at a board meeting and you're talking about sales – you will all have the same information," he says.

### **First steps pay the way**

If the rogue BI scenario sounds like your organisation the time is probably right to take a look at a BI solution – and don't be put off by horror stories of budget blowouts and two-year implementations. According to the experts, the timeframe for a BI implementation should be weeks to a few months, certainly not years. There are a number of reasons for this, but one of the main ones is relevance – and this can be a moving target. "You should be building and designing from day one with the concept that this is going to change," says Whitehead. "Data warehousing is a process not a project. We're providing information that will enable you to make decisions to run your business better but the set of questions you're faced with today are going to be different to the questions you'll be faced with next week, next month or next year. Your business conditions, competitors and even your product range will change." Although some organisations like banking will always need 100 per cent accuracy, Whitehead says it pays not to get too hung up on perfection and NASA-level accuracy. "In some circumstances we would trade off accuracy for timeliness," he says. "CIOs are often caught up with this idea that everything has to be perfect, whereas sales managers would rather have instant information on sales – even though it's not 100 per cent accurate – to get an idea of

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the trend. They want to know as soon as possible if something's working and they'll take it that the numbers are five percent out. It doesn't really matter because they can see a trend and maybe say 'yeah we're not quite doing what we thought we'd be doing with this product - we've got to put some advertising into the market'."

And what should you be spending? While costs vary with requirements, all the experts say BI should be self funding. Whitehead recommends BI pays for itself every step of the way. "Each step needs to add value. The first step is usually pretty obvious. If you're a retailer that's probably going to be sales analysis. So do a really good job of that then move on to the next area, making sure you cost justify every single bit of it." He says organisations should be aiming at "meaningful deliverables" every two to four weeks. "Don't plan the entire thing out to the 17th phase," he says, "when the 17th phase probably won't pay for itself. Phase 1-5 definitely do but after that it's marginal so it's okay to stop." At Montage, Millar says his company doesn't run projects that go longer than three months. "We're building flexible scalable solutions," he says, "that can deliver something every three months to users which will fund the ongoing project."

Companies won't have to look hard for quick and easy ways BI can positively impact the bottom line, say the experts, with customer profiling quickly able to deliver actionable intelligence. "Let's say I wanted to know who my most profitable customer was," says Millar. "It's possible for someone in finance to tell me how much money we made last year and someone in IT can tell me who my customers are - but they couldn't tell me who my most profitable customers are - and without that you're flying blind." Parsons says once you know who your most profitable customers are, further analysis can help you create more just like them. "You have a profile of the person that's your best customer and then you build a model that shows you who the other people are that look most like

your best customer." At that stage he says analysis will reveal how the best customers arrived at that ranking. "So all the people you have identified that look like your best customer - could potentially become one of your best customers as well. You now know the path, it's already been laid out by the existing top customers. You know how they got there and it becomes a case of taking more of your customers on that same journey."

### The human resource

Although BI is frequently positioned as a technology story, it is most definitely a people story as well - and as with most business initiatives, it will succeed or fail on the decisions made by the people deploying it. A recent Gartner report said by 2012 business units would control 40 per cent of the business intelligence budget. Why is this newsworthy? Because it means that decisions on where and what to spend BI money on, are being taken out of the IT department. Certainly at the start of any organisation's BI project, the IT department will likely be front and centre because budget allocations for things like database development are naturally part of an IT brief, but BI shouldn't stay under the control of the IT department because IT don't get analytics. "IT is building IT infrastructure," says Datamine's Parsons, "and operating the business from an IT perspective." And according to Whitehead, that perspective isn't right for BI. "A lot of IT people with the training they get aren't taught to think like that. They're not taught to work in those gray areas. But that's decision-making. For an IT person with a really structured way of thinking those grey areas are a nasty place." In the European market, which in BI terms is five to ten years ahead of NZ, Montage's Millar says most BI operations are being driven by functional departments within an organisation. This is starting to happen in NZ he says, with some clients moving it out of IT and into functional units like marketing and sales - a trend he sees as a logical progression. "It's about

educating a company that this is more important than just technology," he says, "and doing that gets it out of the IT department and into where it should be which is with the organisation's decision-makers and information users."

#### **First mover advantage**

Interestingly, all the industry experts spoken to for this article view the level of BI adoption in NZ currently as at a fledgling stage, meaning there are big opportunities for businesses looking to secure a first mover advantage. "We're way behind in terms of data mining in NZ," says Parsons, "but I don't think that has to be the case for a long time. What will happen is one key company in each industry field will embrace it and that's the company that's suddenly going to go leaps and bounds ahead of everybody else. Then all their competitors are going to say 'man we need catch up or we're going to get killed - and that's when we'll see widespread adoption.'" To help that process along, Millar says there needs to be a shift in how organisations define their KPIs. "Most companies focus on sales," he says, "when they should be focusing on profitability. Sales is an easy metric to get bonused on but whether it's an agricultural or retail business, companies need to understand which customers make them the most money and then focus on and drive loyalty through those customers." NZ companies can start by sticking to the basics of getting from data to information, he says, and educate their people to make decisions based on facts. And that, ultimately, is the point of BI - better decisions - but the techniques and the technology won't make those decisions for you. "To use a sports analogy," says Wherescape's Whitehead, "we're going for an assist. From the data we might recommend targeting a specific set of people, but then there's marketing guys and advertising guys who have to make that decision. They might have got there [without BI] but without that assist it's a hell of a lot harder." ■

# Building the bridge between data and decision-making



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