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Bringing Data to Life Right Before Your Eyes

Your business is sitting on a wealth of valuable data. That might sound great, but the problem for most businesses is that they just can't get to it, they can't even see it.

Recent studies by McKinsey revealed that organisations are only putting 1% of data to work for them. There remains, as a result, massive potential waiting to be unleashed.

In the past, unlocking the value in business data has usually meant relying on teams of highly skilled, highly paid data scientists to translate dense, impenetrable information. But it's no secret that their work, although certainly very valuable, is also painstakingly slow, and costly.

What if anyone in your organisation could be empowered to work with that data? Your finance team, your marketing people, anyone – non-technical staff from anywhere inside your organisation, unlocking the hidden value in your data, and finding answers to questions no one had even thought of asking before. That would be a powerful change.

What if it could be done with minimal training, minimal investment and in a modular way that would allow you to generate returns without disruption?

Visual analytics tools do precisely that, and this is one of the chief reasons we believe they are such a great asset to any organisation with large amounts of data to work with. When your data is displayed as an image it takes on a whole new form; patterns, trends and potential problems begin to reveal themselves.

For many of our clients, we ushered in the era of ERP and business intelligence. We helped them understand what big data is and how its use can affect their organisations. Business intelligence (BI) systems are still a very powerful and important part of any corporate business infrastructure. Visual analytics differ from BI in one simple, yet highly effective way.

BI requires you to define your business rules first, then you are able to analyse and assess the performance of your organisation based on data relating to these pre-defined criteria.

Data visualisation is more fluid than that. It allows you to define, refine and constantly update your business rules based on analysis you are able to do on the fly. In fact, it goes beyond that … it doesn't just allow you to do this, it compels you to.

As a leading partner of pioneering data analytics company Tableau, JOS can help you see that, when it comes to working with your data, a picture really can be worth a thousand words.

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How does it work?

Tableau works with you and with your business needs. It was designed to be accessible to anyone – software that anyone can use, is how the company's founders like to describe it. It encourages you to ask questions, to be inquisitive, to find out more about the patterns locked deep inside your business information.

By creating powerful, intuitive visual representations based on your data, Tableau brings these patterns quickly to the surface,

enabling anyone within your organisations to find the answers they need fast. They don't need to be fluent in Boolean logic – they just need to be engaged and curious.

You can blend or mash datasets from different parts of your business, or internal and external data and see how patterns are reflected. With Tableau, you can even choose to deep dive into the data with advanced analytics. Maybe you're interested in the correlation between marketing campaigns, finance deals, sales

and also climate? Perhaps you need on-the-fly analysis of financial transactions to see if any of your traders are trying to hide something; it might be under-performance, or it might be something far more sinister, such as fraud.

In a visual analytics environment, exceptional activities begin to reveal themselves immediately – they show up as outlying dots on a chart, or unexpected peaks on a graph; they become impossible to miss and can be investigated quickly.

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Who is using it?

INSURANCE **FINANCE** **RETAIL** **IT SERVICE MANAGEMENT** **PUBLIC SECTOR**

INSURANCE

Insurance companies have always worked in a data-rich world; determining risk is all about data analysis, after all.

Identifying potential fraud has become a major focus area for insurance companies. Especially if that fraud is part of systematic and ongoing criminal behaviour from people who know how to hide their actions carefully.

For example, a health insurance company may suspect a particular physician is benefitting from a higher than usual claim-paid ratio. This may show up as a peak on a data visualisation chart. But when cross-referenced with a dataset showing which claims handlers within the insurance company processed those higher than usual claims, an important correlation may reveal itself. If a particular claims processor is paying out higher amounts to a particular claimant it could be an indication of criminal collusion. But it might also indicate sub-optimal training and performance in one call centre, or region.

You'll only know when you investigate, and you can only investigate where the data tells you there might be a problem.

FINANCE

Finance underpins everything in business. Yet for many people it can seem like it's wrapped up in obscure and off-putting terminology.

Getting away from columns of numbers and creating visual representations has meant data visualisation has become a valuable tool for helping non-finance people work with financial data across all areas of their organisation.

Whether it's a manufacturer with many different product lines, or a services company with separate teams carrying out similar work for different clients, assessing profitability can be a complex undertaking. Is one team incurring higher costs than another? Does one team take longer to complete tasks than another?

In cases like this, a visual approach such as performance charts and dashboards can start to show the causes of such anomalies and hasten an investigation into them.

Combining financial data with call center data to understand cost per call, is one example. Looking at production data to assess the relationship between yields and costs is another. Factor in headcount, workforce demographic information, location of office or facility, and complex patterns can give way to beautifully simple answers.

RETAIL

Retail companies have more data at their fingertips than ever before, covering every aspect of customers' behaviour, seasonal influences on buying patterns, emerging fashion trends, and the wider economic outlook. If you can understand what makes customers more likely to buy the things you want to sell them, you can start to tailor your operations more effectively.

If you need to understand the way a particular product's sales are being affected by the customer demographic of different stores, but also how seasonality may be influencing sales, data visualisation is arguably the best way to very quickly and easily highlight the forces at play.

Perhaps returns are causing your logistics operations to struggle at peak times. If you can identify the bottlenecks quickly you can make decisions on whether to hire more temporary staff, or invest in automation, or even decide that it makes more financial sense to scrap products below a certain value than to try to repurpose and resell them.

You can even pull all your product sales information into one dashboard that allows you to make evidence-based decisions regarding your planogram. This will enable you to develop an interactive planogram built on rapid insight into buying trends.

IT SERVICE MANAGEMENT

The IT service management sector has left behind its break-fix reputation and is becoming a more strategic part of the business mix. Or at least, it should.

If you set performance monitoring criteria in advance of problems happening, you can catch them before they become critical – whether it's a server that's about to experience a disk failure or a switch that is nearing the end of its useful life. The part fails, your engineer is notified and action can be taken.

Data visualisation will take that approach several steps forward.

A live map of every element on the corporate network, corresponding with clear performance metrics can reveal potential problems before they strike. Restricted bandwidth can be a symptom of any one of a number of problems; you can't always afford to wait until a failing part has finally stopped working before you know the origin of the problem.

You need to see the network as a living, breathing diagram, enabling your engineers to take early, preventative action by investigating problems as soon as they start to emerge.

PUBLIC SECTOR

Government bodies hold incredible amounts of data about citizens, towns and cities, services, utilities, infrastructure, and so much more. Budgets are under more pressure and more scrutiny than ever, so being able to deploy assets and make the right decisions has never been more important.

In large government departments, some databases can contain several million rows; this would take days, or even weeks, to carry out a simple manual interrogation. During which time the data is constantly changing.

Multi-agency collaborations in the public sector add yet more data into the mix, and demand even clearer answers from it. This could relate to supporting vulnerable families and children, requiring schools, physicians, social workers, the local government authority, even the police to all work together.

It might relate to economic regeneration strategies, where an assessment of unemployment rates, age distribution of the population, academic attainment, skills training, health, ethnicity and more will all feed into decisions that need to be taken.

Those decisions are taken by senior officials who need to be fluent in problem solving – not in data analysis. Data visualisation allows them to be empowered and to make informed decisions based on analysis and interrogation of complex multi-source information.

Why JOS?

A leading provider of integrated IT solutions in Asia with a track record of success spanning more than 60 years, JOS has a strong heritage in the region. We have earned our customers' trust through a reputation for high quality, reliability and always taking the long-term view on their best interests.

Our core capabilities include big data, cloud computing, enterprise applications, enterprise security, mobility, internet of things and next generation infrastructure. JOS has built partnerships with highly capable IT partners across the globe to deliver on customers' worldwide IT requirements. Wherever our customers want to do business in Asia, we have trusted partners they can turn to. Carrying a broad selection of enterprise technologies from market-leading and pioneering vendors, our independence means that we can always choose the solution that's right for them.

Not being able to examine your data effectively is a bit like sitting on top of a goldmine and not owning a shovel. But even if you have a shovel, digging is only one part of the process. You must not only extract the gold but also clean it, process it, sort it, weigh it, transport it and sell it.

Data holds many answers. But if you don't know what questions to ask, the answers won't make sense.

Over more than half a century, JOS has worked on many complex integration projects for our clients. We have gained an unprecedented level of expertise in bringing together disparate elements of corporate IT infrastructures. With the powerful analytic visualisation capability of Tableau, we can break open data silos, make information available to those who need to work with it, and help an organisation appreciate how to make its valuable data reveal high-value insights to enhance decision making.

We have unparalleled experience across the Asian market and an enviable track record of working in many vertical sectors. The knowledge and expertise we have gained over 60 years means we can quickly understand the needs of each of our clients.

JOS operates nine offices across Asia's major business hubs in China, Hong Kong, Macau, Malaysia and Singapore.

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