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Is the Data Science bubble about to burst?

Are businesses getting it wrong on their data centricity journey? Part 2 – Ways of working and process

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Is the Data Science bubble about to burst?

In our series entitled “Is the Data Science Bubble about to burst”? We will discuss the common watch outs that cause data strategies to fail and how to avoid them. Below is Part 2 of our 5 part series.

Part 2 : Process – Trust the process!

In Part 1 we stressed the importance of having the right team structures in place and the need to recruit talented individuals who are motivated to succeed. Too often poor team design can lead to failure before any data is analysed!

However, according to Fujio Cho, this is not enough. Success is also dependent on putting in place the right ways of working and processes.

“We get brilliant results from average people managing brilliant processes while our competitors get average results from brilliant people managing broken processes” – Fujio Cho

For a lot of organisations, this resonates. When new capabilities are launched, business stakeholders have high expectations. If there are barriers in place that prevent the delivery of value add, business focused actionable insight then these expectations can quickly turn to frustration and even disillusionment.

How can poor 'Process' burst the bubble?

Businesses need to make decisions promptly and those that are more data-centric will look to data to help inform those decisions. However, there are challenges. Below are quotes from business units frustrated at the lack of data support:

"The team cannot turn around urgent requests- by the time they deliver it is too late"

"The work they did was not quite what I asked for, so it didn't add the value I had hoped for"

"The report was just a set of numbers – there was no 'so what' or recommendations that resonated with my strategy"

"I don't understand what takes so long, surely they just have to click a few buttons"

The data teams themselves can be similarly frustrated, after all, they also want to do a good job.

- "Last-minute BAU requests continually distract me from the bigger, strategic projects"
- "The business is constantly changing their minds as to what they want – I dread the words: 'can you just'"
- "Running the code will take several hours never mind interpreting the results"
- "I am not close enough to the business to be able to make actionable recommendations"

So how do we get the business and data teams to work better together?

Doing the work right

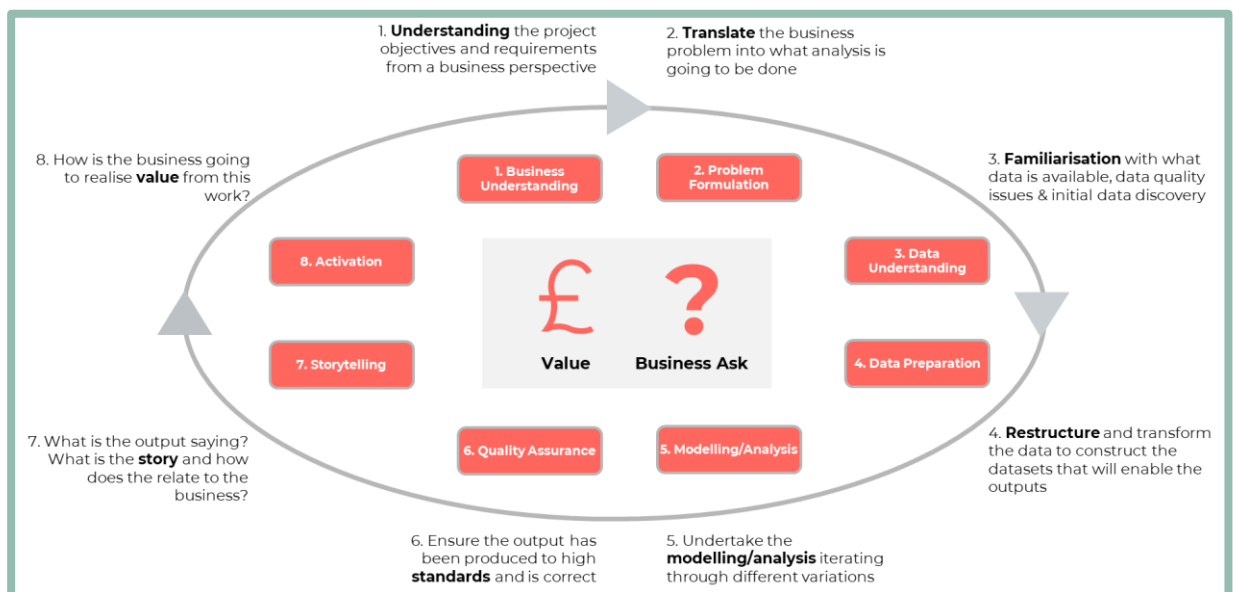
Often data analytics teams are centralised or at least work outside of their stakeholders' reporting lines. This means they are a service team and their success is ultimately driven by internal client satisfaction. If the clients are happy then the team is seen as delivering.

Several elements underpin 'successful' delivery. The first of which should go without saying but unfortunately is still a common problem – the work has to be delivered on time and to high standards. Shoddy work can lead to bad business decisions. Clients need to trust that deadlines are going to be met and the standard of work is high. Team operating models and processes need to de-risk delivery and ensure client needs are met.

An internal framework for success

For any analytics manager or professional, there are several recognised frameworks for success. These help ensure that the business problem is well thought through and well executed. Below is a variant of the well-known CRISP-DM framework.

These frameworks focus on ensuring complex problems are broken down into discrete manageable steps, risks and barriers are identified and that success is defined early in the process. A key part of this framework is quality assurance.



Quality assurance is a key part of 'getting it right'

It doesn't matter how good the team are, how experienced they are or indeed how simple the question is – giving the right answer is critical. This can only be guaranteed by instigating quality assurance measures within your project management (see the previous framework).

By quality assurance we mean both:

- Error prevention as part of doing the analysis; and
- Error detection as part of a sign-off process before the work is sent to the client.

Error prevention

There is a famous quote related to working within Excel:

"Research shows that 95% of all spreadsheets contain errors yet 95% of all Excel users think that their files are error-free."

This adage is probably true for a lot of data analysis. It is very easy to make mistakes and for analysts to believe they are infallible. Every single interaction with data, be it manual (e.g. Excel) or through the use of code (e.g. SQL, R), can lead to errors. We are human after all.

To prevent this we need to ask ourselves:

- How can I undertake this work such that the likelihood of an error is reduced?
E.g. Reduce the number of copy and pastes of data
- After every manipulation how do I check the data is still correct?
E.g. Run a row count
- How can I document in my code what QA I have done to make it easier for me (and a peer) to feel confident in the output?
E.g. Include the QA counts as a comment in the code
- What have I done to confirm the raw data is correct?
E.g. Don't assume the data is aggregated how you expect it to be

It is down to good management to ensure questions like these are part of every day delivery.

Error detection

Error detection is as equally as important as error prevention albeit it is often missed out on a project plan due to lack of time or available peer resources. All deliverables should be undertaken with the right-first-time mentality and once it is passed for peer review – no mistakes should be found. It is easy to lapse into the mentality of 'QA will pick that up. QA should be seen as a safety net only.

Peer checking should be done by someone familiar with the client, data and business problem as errors can occur at any part of the delivery framework. The analyst involved should structure their work, code and comments to make the peer's job as easy as possible – in fact, it makes everyone's jobs easier.

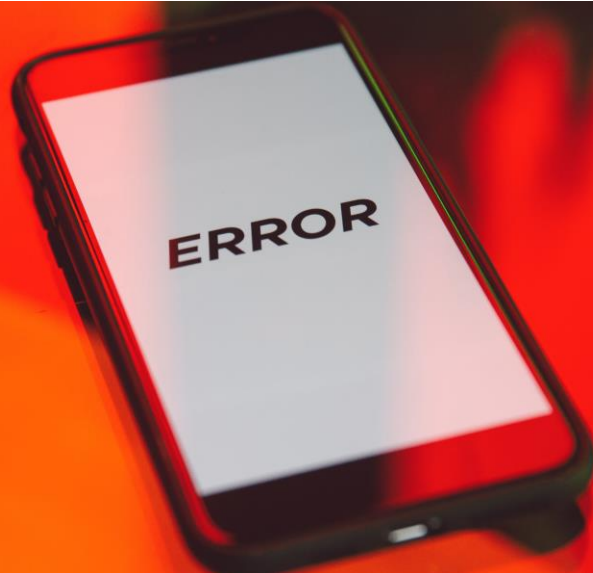
The type of checking that both the analyst and the peer can undertake (and should!) are highlighted below.



It is always good to be paranoid. Use it to develop rigorous QA protocols.

Doing the work right is the first of three areas where good process can help the data team establish better working relations with their client base.

The second is **doing the right work**. Here the focus is on ensuring the business needs and priorities are being met.





Doing the right work

Briefing & Scope

Clear communication of the requirements of any piece of analysis is key. There are so many assumptions and decisions to be made – they have to be made in consultation with the business i.e. a clear brief is needed. Whilst this might seem onerous and additional ‘admin’ it provides clarity and focus for all stakeholders. It also prevents scope creep.

Balancing stakeholders

Once an analytics function is established it will be in high demand with various parts of the business submitting requests. The challenge for a centralised team is how is this prioritised and by whom? Is it the team leader? The stakeholders? A board member? Or simply whoever shouts loudest. The impact of doing this badly should not be underestimated. One option is to ring-fence resource effort so that each part of the business is supported.



Tactical vs strategic

Often an analytics team may have to respond quickly, reprioritising work where necessary. However, do this too frequently and it is easy for bigger projects to never quite happen. Again transparency and communication can help the business make the right decisions around priorities. This can be achieved with a simple work plan, transparent deadlines and workloads and regular planning sessions with the stakeholders.

Integrating with the business

Comms

The third ingredient for success is providing the analytics team with the knowledge to translate and align what they are seeing in the data with business decisions and strategy. In so doing actionable recommendations become easier to make. If the analyst operates in isolation it becomes harder to make the work relevant to the business. The key to success here is communication with the business. This can be as simple as regular meetings.

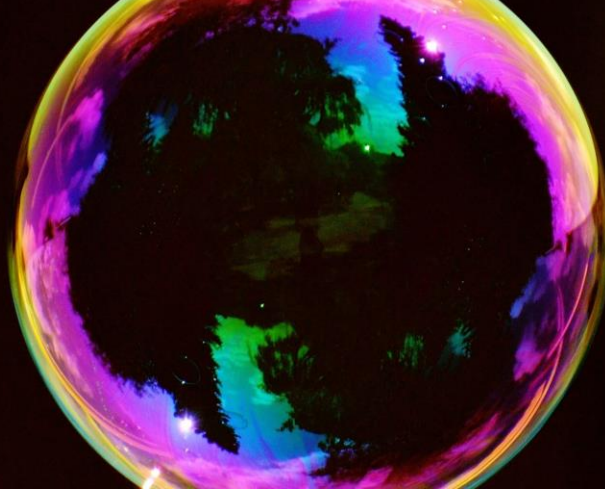
Planning

Proper resource planning and forecasting of future projects are critical. Have a resource plan, have a project wishlist pipeline and then work with the business on aligning what work should be done and when. Engaging the business in this makes them emotionally engaged and supportive of difficult decisions.



Visibility

One challenge with any data team (certainly in years gone by) is the problem of the analysts sitting in a corner and not talking to anyone. Integration into business units is key. Be visible. Be part of the team. Communicate project progress, challenges, risks and get the business to input into problem resolution. By keeping visible, the team will remain front of mind and far more engaged in future strategies.



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So how do businesses avoid a burst bubble?

In Summary: Part 2 - Process

1. Ensure the team can deliver high quality work to deadline

The foundation of any good team is high-quality work. It is worth over-investing in this area to build up a strong reputation internally. There should be frameworks and protocols in place to ensure success does not just happen by chance.

2. Clear prioritisation of project conflict

Agree with the business on how projects will be prioritised and communicated this early. Once the conflict is 'happening' it is difficult to act objectively. Regular sessions should be held to review the project pipeline and business calendar, allocating resources accordingly.

3. Ring fence resource

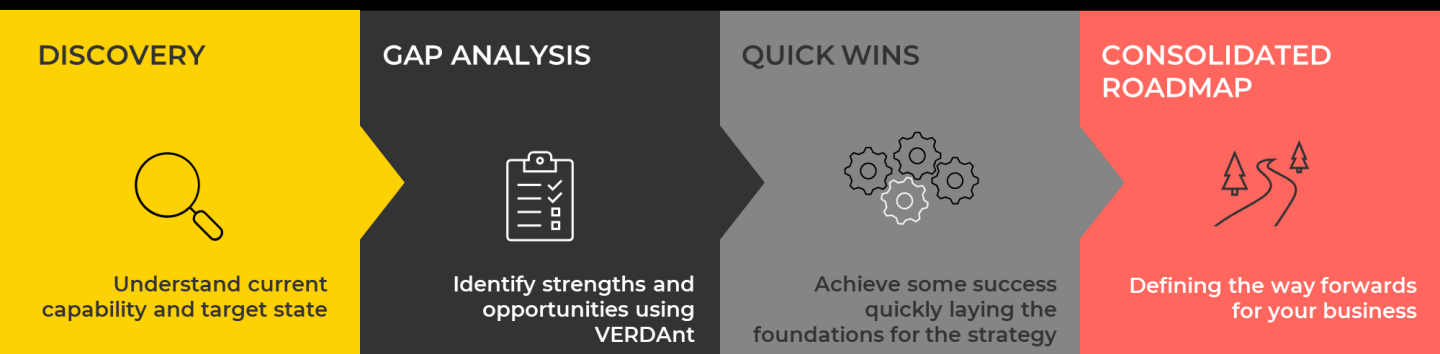
A ring-fencing resource is an easy way of ensuring different parts of the business are supported and indeed key initiatives are not continually deprioritised for last-minute BAU requests. Different parts of the business will have complete transparency as to what support they can expect and if they want more it becomes easier to write the business case.

4. Integrate with the business

An analytics team should never operate in isolation. It should be seen as a natural extension of the business function and should be integrated into its planning and communication.

We have helped significant numbers of organisations become Data Centric

We have a tried and tested 4-step process with particular focus on achieving success quickly – and without re-inventing the wheel.



There are multiple parts to your data capability. We look across these areas to identify issues and opportunities and align them to the business plan. We have developed our own bespoke framework VERDant to give you transparency as to 'why' and 'how' things need to change to ensure your data function is fit for purpose to deliver value.

We can help!

We'd be happy to have a free consultation with you to talk through what data and analytics challenges you are facing and how we might be able to help.

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