Gain more business value from Advanced Analytics, by recognizing and overcoming common obstacles

In March 2021 the MIT Sloan Management Review included an article entitled 'Why So Many Data Science Projects Fail to Deliver'. An interesting read at the time, I've found myself referring colleagues and clients to the article on numerous occasions since.

Building on an earlier MIT Sloan article (What Separates Analytical Leaders from Laggards) which identified that the gap is widening between those organisations gaining value from data analytics and those struggling to do so, this article is structured around five 'mistakes' or 'obstacles' that emerged from interviews with data scientists, executives and managers:

1. **The Hammer in Search of a Nail**

   The essential concern outlined in the supporting commentary is that the data science team may focus on the use of a specific advanced tool or technique which may prove to be inappropriate for, or far more sophisticated than is required to solve a business challenge. The unsurprising conclusion is that analytical solutions are best developed with an appreciation of business context.

2. **Unrecognised Sources of Bias**

   Do you have sufficient controls in place to ensure that the data utilised in an analytics model has not already been filtered in a way that could compromise the ability of the model to reach the right conclusion? The use case highlighted here was a model to identify characteristics of users likely to default on loan repayments, that was trained using a data set from a system that had no visibility of a pre-screening process which prevented many of the highest risk customers being offered a loan in the first place.

3. **Right Solution, Wrong Time**

   The examples used here were of a business unit not having budget to implement a newly developed model, and of a change in business unit strategy not being reflected in a model developed by the data scientists. This is really another symptom of misalignment between the focus of the organisation's data scientists and the business units that could be leveraging the data science capability.

4. **Right Tool, Wrong User**

   This section includes a cautionary tale of how the effectiveness of recommendations based on data analysis might be related more to the channel and customer experience surrounding the delivery of the recommendation, then the 'correctness' or benefits of the recommendation itself. The scenario described the difference in results observed when recommendations were delivered directly to customers in a mobile app against the same recommendations delivered by a trusted intermediary (e.g. a relationship manager in a branch).

5. **The Rocky Last Mile**

   An interesting use case described here was about business user's reticence to embrace data generated by a data science model, not because of the quality of the model or the data but weaknesses in the business process that the data was feeding into. The call out is that someone needs to show the leadership required to identify and address such business process weaknesses to give the analytical output some chance of being of value.

The common thread that runs through many of the examples used in the article is that it matters greatly who those performing the advanced analytics work most closely with.

The article notes that one tactic effectively used to avoid some of these mistakes is to embed specialist data analysts or data scientists into business units, so that analytics work is focused on solving real world problems. There is a downside to this organisation model in that it may stifle the true innovation that can flow when specialists are permitted to take a new technology, technique or data set, and explore the possibilities. The right model therefore is generally to have a mix of practitioners focus on working in cross-functional teams, working on specific business challenges as well as a more technical centric research capability, with the latter requiring an exemplary communication and internal marketing capability to ensure that potential solutions can quickly find the best business opportunities.

Other tactics to avoid the listed mistakes similarly involve those building data analytics solutions working very closely with specific business process subject matter experts (especially those who have for years had to make business decisions without the benefit of all the data now available), experience design professionals and organisational change specialists.

I particularly like the idea trialed by one of the organisations in the study to evaluate the performance of data scientists by estimating the business value delivered by their solutions.

Bottom line is that if your most talented data professionals are spending far more time with their heads in the data than talking with people applying non-data-centric techniques to pursue business opportunities, you are unlikely to realise an acceptable return on your investment in data analytics.

To see how we can help your business gain more business value from their data, please contact a Fujitsu Data & AI specialist now.

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