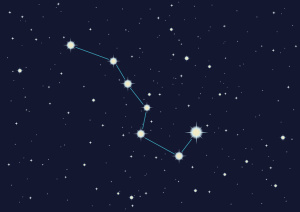
Our ancestors, trying to make sense of the world in which they found themselves, looked up in the night sky at myriads of stars and tried to determine patterns in what they saw.

[](http://kjmackey.files.wordpress.com/2013/12/fotolia_7248152_s.jpg)

From those efforts came mythology and folklore. This is not to say that mythology and folklore don't contain kernels of truth. They do. We've all worked at companies where there's a vibrant folklore about the company's business, market, customers. These companies survive.

Although, sometimes despite their best efforts.

Today we read about data science as a means to determine, as the approach to find, the patterns in huge quantities of data.

OK, I'll just say it. No, it's not. Or, no that's not its primary purpose.

The scientific method is about experimentation, hypothesis-driven examination of available data, aimed at understanding...something.

Data science in business is aimed at understanding, making decisions about, business. This is not an area of pure research. That is valuable elsewhere, and belongs elsewhere.

Data science in business can be defined in terms of the following, at least, four things.

**1) Data science is about asking questions—not of the data, but of the business.**

Can we take action X without cannibalizing Y? Or deeper: if we take action X, will it cannibalize Y—and does that matter?

It’s hypothesis-driven. From the business come the questions. From the questions come hypotheses. We then examine the data to see which of the hypotheses prove true, which not.

The impetus comes from the business, the question framed in business terms, the answer only useful if it benefits the business.

**2) Data science is about experimentation and testing.**

If we look back at the data, can we determine halfway through a month, or a quarter, whether we can decrease spending in one area and still have the outcome we need?

So we model the past to see if it can determine the "future" as recorded in past data. Then we try with the real future, and see if reality conforms to prediction.

**3) Data science is about repeatable experiments.**

Refined experiments, if necessary. But they must be repeatable experiments.

Once we're sure the experiment is reliably repeatable and of value to the business, it can graduate from the laboratory to production processes.

This is not the data scientist team’s role. As a VP of Analytics I worked for once said: "We're doing bench chemistry. Once we prove it out, then it's time for industrial pharmaceutical processes to come into play."

**4) Data science is about failure.**

About success, too. But it must embrace the possibility that the hypothesis on which we hope to make a business decision may prove false. When that happens we need better hypotheses, and better decisions.

But, as stated above, data science is about business, not data.

Otherwise you won't know if that pattern you're seeing is a Big Dipper that you can ride out, or a market-ending Great Bear.

Good hunting.

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