
Characteristics of Predictive Analytics Use Cases

Finally, we come to the holly grail of big data: Predictive Analytics. What all these use cases have in common is that they try to use machine learning algorithms operating on past data available in a Single View data lake to predict future events with a high degree of confidence. More specifically, if you notice that the business is struggling with:

- **Poor confidence in data-driven decision making**, where a company keeps making predictions with too much uncertainty
- **Lack of preventative maintenance**, where a company doesn't have any ability to fix or replace equipment right before it breaks
- **Insufficient decision making capacity**, where a company only makes a subset of the predictions you need
- **Familiar surprises**, where everyone within a company knows that certain problems will happen, but they are surprised and unprepared when they do,

you can confidently recommend Predictive Analytics to be the next area of investment around big data. This is the most exciting, but also the most challenging step, that will often require a new kind of skill set (that of a data scientist) to be available within the company, in addition to IT skills.

