

MARKDOWN SLIDES

Ian Hawke

INTRODUCTION TO OR

IAN HAWKE

MICHAEL KENNA-ALLISON

A MEET UP

A hard year.

Describe, predict, prescribe?

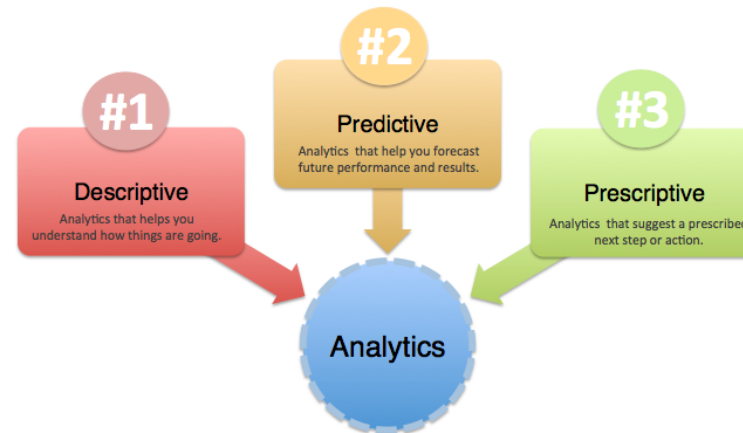


Describe, predict, prescribe?

Operational Research (OR) belongs to *analytics*:

- What is happening? (*Describe*)
- What will happen? (*Predict*)
- What should we do? (*Prescribe*)

OR tools are prescriptive.



Algorithms

- A description
- of a *finite* set of operations
- that solve a *given problem*
- for **all** of its *instances*.

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- of a *finite* set of operations
- that solve a *given problem*
- for **all** of its *instances*.
- *Problem*: solve $ax^2 + bx + c = 0$ for $x \in \mathbb{C}$.
- *Instance*: $a = 2, b = 8, c = 5$.
- *Algorithm*:
 1. Compute $b^2 - 4ac$ and $2a$;
 2. Compute $\sqrt{b^2 - 4ac}$
 3. Compute $(-b \pm \sqrt{b^2 - 4ac})/(2a)$.

SUMMARY