

## How do we determine cost?

The effectiveness of CSL relies on the supplied cost matrix.

- Low cost will not find the proper classification boundary
  - biased towards majority class
- High cost may impair generalization
  - Unable to predict well the majority classes



## How do we determine cost?

Cost Matrix provided by Expert

Domain expert to determine real costs

Heuristic

Imbalance Ratio

**Optimisation** 



## The nature of imbalanced classes

Factors that influence the ability of a classifier to identify rare events

- Small sample size
- Class separability
- Within-class sub-clusters.





## THANK YOU

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