Problems with Classification Accuracy

- Some decision errors are more serious than others
  - It may be more important to get the decisions right on some documents than others
  - It may be more important to get the decisions right on some categories than others
  - E.g., spam filtering: missing a legitimate email costs more than letting a spam go
- Problem with imbalanced test set
  - Skewed test set: 98% in category 1; 2% in category 2
  - Strong baseline: put all instances in category 1 ➜ 98% accuracy!