



Data Mining with Weka

What's data mining? What's Weka?

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Data Mining with Weka

... a practical course on how to
use Weka for data mining

... explains the basic principles
of several popular algorithms

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❖ What's data mining?

- *We are overwhelmed with data*
- *Data mining is about going from data to information, information that can give you useful predictions*

❖ Examples??

- *You're at the supermarket checkout.
You're happy with your bargains ...
... and the supermarket is happy you've bought some more stuff*
- *Say you want a child, but you and your partner can't have one.
Can data mining help?*

❖ Data mining vs. machine learning

Data Mining with Weka

❖ What's Weka?

– *A bird found only in New Zealand?*

❖ Data mining workbench

Waikato Environment for Knowledge Analysis

Machine learning algorithms for data mining tasks

- 100+ algorithms for classification
- 75 for data preprocessing
- 25 to assist with feature selection
- 20 for clustering, finding association rules, etc



Data Mining with Weka

What will you learn?

- ❖ Load data into Weka and look at it
- ❖ Use filters to preprocess it
- ❖ Explore it using interactive visualization
- ❖ Apply classification algorithms
- ❖ Interpret the output
- ❖ Understand evaluation methods and their implications
- ❖ Understand various representations for models
- ❖ Explain how popular machine learning algorithms work
- ❖ Be aware of common pitfalls with data mining

Use Weka on your own data
... and understand what you are doing!

