SNS COLLEGE OF ENGINEERING
Coimbatore-107

Unit-III
DATA MINING – INTERESTINGNESS OF PATTERNS

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What makes pattern interesting?

- If pattern
  - Is easily understood by humans
  - Valid or new or test data with some degree of certainty
  - Potentially useful
  - Novel

Objective Measures of pattern interestingness

- Confidence:

- Degree of certainty of detected association

- Conditional Probability P(Y|X)-> probability that transaction containing X also contains Y.

- Support(X=>Y) = P(XUY)

- Confidence(X=>Y) = P(Y|X)

Objective Measures of pattern interestingness

- Accuracy & Coverage for classification (IF.THEN rules)

- Accuracy -> % of data that are correctly classified by a rule

- Coverage-> % of data to which a rule applies

Objective Measures of pattern interestingness

- Objective measure is incomplete without subjective measure.

- Subjective measure: reflects particular user's need & interests

- Based on user beliefs on data

Can a DM system generate all of the interesting pattern?

- Refers completeness of DM algorithm
- Unrealistic and inefficient for DM systems to generate all possible patterns

Can a DM system generate only interesting patterns?

- Refers optimization problem in DM

- For efficient discovery of patterns, measures of interestingness are essential.

- This measures are used after DM steps to rank discovered patterns according to their interestingness

Thank You