domain ontologies

annotations, mappings

data

Semantic data mining

model, patterns

```
target(A) :-
    'Doctor'(A), 'Italy'(A).

target(A) :-
    'P

target(A) :-
    'P                    'Gold'(A).

target(A) :-
    'Germany'(A), 'Insurance'(A).

target(A) :-
    'Service'(A), 'Germany'(A).
```

Given:

- transaction data table, relational database, text documents, Web pages, …

- one or more domain ontologies

Find: a classification model, a set of patterns