01 Thieblin

Introduction

Background

* Knowledge representation models
* Expressions
* Alignment and correspopndece

Classification of comples matchers

* Classifications of Ontology matching approaches
* Classification for complex matching approaches
  + Type of correspondence
  + Guiding structures
    - Atomic patterns
    - Composite patterns
    - Path
    - Tree
    - No Structure
  + Members expression pre-definition
    - Fixed to fixed
    - Fixed to unfixed
    - Unfiexed to unfixed

Complex alignment approaches

* Atomic patterns
  + Correspondence
* Composite patterns
* Path
  + (clio)
* Tree
* No Structure
* Summary

Evaluation of complex matchers

* Complex alignment datasets
* Evaluation metrics
* Summary

Discusion

Conclusion

Reference

02 Aleksovki A survey and categorization of Ontology-Matching Cases

Introduction

Ontology-Matching Cases

Descriptions of Problem Types

* Precision versus Recall
* Complexity of representation
* Four categories of use-cases
  + Question Answering
  + Unified view over collections
  + Serendipity in browsing
  + Data migration

Techniques that solve Mapping Problem in the Use Cases

* Question answering
* Unified view over collections
* Srendipity in browsing
* Data migration

Conclusions and future work

03 Rahm A survey of approaches to automatic schema matching

Introduction

Application domains

* Schema integration
* Data warehouses
* E-commerce
* Semantic query processing

The match operator

Architecture for generic match

Classification of schema matching approaches

Schema-level matchers

* Granularity of match(element-level vs structure-level)
* Match cardinality
* Linguistic approaches
  + Name matching
  + Description matching
* Constraint-based approaches
* Reusing schema and mapping information

Instance-level approaches

Comining different matchers

Sample approaches form the literature

* Prototype schema matchers
  + LSD
  + SKAT
  + TransScm(Tel Aviv Univ.)
  + DIKE (Univ. of Reggio Calabria, Univ. Of Calabria)
  + ARTEMIS
  + Cupid(Microsoft Research)
* Related Prototypes
  + Clio(IBM Almaden and Univ. of Toronto)
  + Delta(MITRE)
  + Tess(Univ. of Massachusetss, Amherst)
  + Tree Matching (NYU)

Conclusion

04-Ochieng-2018- Large-Scale Ontology Matching: State-of-the-Art Analysis

Introduction

* Key challenges that large ontologies pose:
  + Increased Complexity of the matching Process
  + Demand of the More Memory
  + Increased Execution Time of the Mapping Process
* Definition of Terms
  + Ontology Matching
  + Correspondece
  + Alignment
  + Matcher
  + Similarity Matrix
  + Precision
  + Recall
  + F-measure of the alignment

Scalability Techniques

* Reduction of Search Space
  + Ontology Partitiong
    - Module extraction.
    - Complete ontology partitioning
      * Maintaining effectiveness of a matching tool.
      * Supporting parallelization
      * Reducing time complexity
    - Reducing Search Space
    - Supporting Parallelization
    - Maintaining Effectiveness of a Matching Tool
    - Reducing Time Complexity
    - Requirements of an Ontology Partitioning Algorithm
    - Ontology Partitioning Techniques
      * Graph-based approach
      * Logic-based approach
    - Comparing Tools that Use Partitioning in Ontology Matching
    - Tools that use partitioning as way of reducing time complexity
      * DKP-AOM
      * COMA
      * FALCON-AO
      * COGOM
      * Anchor-flood
      * Optima
      * GOMMA
  + Use of Data Structures
    - * Structural index
      * Lexical index
    - Evaluation of Tools That Use Data Structures to Reduce Search Space
    - Tools that Use Data Structures
      * CLONA
      * EXONA
      * LOGMAP FAMILITY
      * IAMA
      * ServOMBI
      * AgreementMaker Light
      * SLINT
      * YAM++
  + Use of Ontology Structure
    - * Owl:disjointWith axiom
      * Similarity Flooding
    - Tools that exploit this technique include:
      * CODI
      * Lily
* Parallel Composition