

# Semantic Enrichment in OWL Knowledge Bases

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## ABSTRACT

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## General Terms

Theory

## Keywords

Ontology engineering, Supervised machine learning, Knowledge Base Enrichment, OWL, Heuristics

## 1. INTRODUCTION

- semantic web: growing, bigger knowledge graphs
- Open data Initiative, Protoge ontologie etc
- lack sophisticated schema (only schema no instances, only facts)
- combination good schema + instance data -> powerful reasoning, consistency, improved query
- Example: Person birthplace + Benefits + missing info + semi-automated

## 2. ENRICHMENT OVERVIEW

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- more

- more

## 3. CLASS LEARNING

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- more

## 4. ENRICHMENT WITH OWL AXIOMS

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## 5. HEURISTICS

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## 6. HEURISTICS

### 6.1 Finding the right Heuristic

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### 6.2 Efficient heuristic computation

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- more

## 7. EVALUATION HEURISTICS

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- more

## 8. EVALUATION ON ONTOLOGY ENRICHMENT

- more

- more

- more

## 9. RELATED WORK

- more [2]

- more [1]

- more [3, 4, 5]

- more [6]

## 10. CONCLUSIONS

- more

- more

- more

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