

Ph.D. DRAFT PLAN

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Abstract

Acknowledgements

Table of Content

Introduction (2 weeks) Due 2019-03-11; Corrected 2019-03-22

0.1. Thesis Context

0.2. Motivations

0.2.1. Observation

0.2.2. Abstraction

0.2.3. Cognition

0.3. Issues

0.4. Contributions

0.5. Plan

(Presentation du plan)

1. Knowledge representation (3 weeks) Due 2019-01-04; Corrected 2019-01-11

(Notation)

1.1. Fundamentals

État de l'art

1.1.1. Foundation of maths and logic systems

(ZFC, DL, Category theory)

1.1.2. Grammar and Parsing

(BNF, Dynamic Grammar, Context free)

1.1.3. Ontologies and their Languages

(RDF, OWL, and Their limitations)

1.2. *WORLD*

1.2.1. *Knowledge Structure*

1.2.2. *Dynamic Grammar*

1.2.3. *Contextual Interpretation*

1.2.4. *Structure as a Definition*

1.2.5. *Extended Inference Mechanisms*

1.3. *Perspectives*

1.3.1. *Literal definition using Peano's axioms*

1.3.2. *Advanced Inference*

2. General Planning Framework (3 weeks) Due 2019-01-25; Corrected 2019-02-08

2.1. *Existing Languages and Frameworks*

État de l'art

2.2. *Taxonomy*

2.2.1. *Action type*

(Définition)

2.2.2. *Plan type*

(Définition)

2.2.3. *Problem type*

(Définition)

2.3. *Color*

(Framework)

3. Online and Flexible Planning Algorithms (3 weeks) Due 2019-02-24; Corrected 2019-03-04

(Conference + poster + 4 half day of teachings adds a week)

3.1. *Existing Algorithms*

État de l'art

- 3.2. *Lollipop*
 - 3.2.1. *Operator Graph*
 - 3.2.2. *Negative Refinements*
 - 3.2.3. *Usefullness Heuristic*
 - 3.2.4. *Algorithm*
 - 3.2.5. *Theoretical and Empirical Results*
- 3.3. *HEART*
 - 3.3.1. *Domain Compilation*
 - 3.3.2. *Abstraction in POP*
 - 3.3.3. *Planning in cycle*
 - 3.3.4. *Properties of Abstract Planning*
 - 3.3.5. *Computational Profile*
- 3.4. *Planning Improvements*
 - 3.4.1. *Heuristics using Semantics*
 - 3.4.2. *Macro-Action learning*
- 3.5. *Recognition*
 - 3.5.1. *Existing approcahes*
 - 3.5.2. *Rico*

Conclusion

+ Finalisation (1 weeks) Due 2019-03-25; Corrected 2019-04-01

Apendix

References