# LCC MAC Solution

- 1. Main LCC BTs and SPARQL Queries
- 2. New Features for LCC
- 3. LCC Baseline vs LCC Mac result for 10 agents
- 4. Next steps

# New Features required for LCC

- 1. CoalitionGenerator node
- 2. BOSS node
- 3. Insert feature
- 4. SquareRoot node
- 5. Update in Wait node for queue events
- 6. Some SPARQL queries as templates

# LCC MAC & Baseline results

#### Agents

#### ID – Gender – Nation – Gender Preference – Nation Preference – CPL – Attendance

- 1. Female Nation3 Female Mixed 51 No
- 2. Male Nation 2 Male Mixed 83 Yes
- 3. Female nation2 Female Mixed 45 Yes
- 4. Male Nation1 Dont mind Same- 74 Yes
- 5. Female Nation3 Female Dont mind 53 Yes
- 6. Male Nation2 Male Dont mind 73 No
- 7. Female Nation2 Female Dont mind 63 Yes
- 8. Male Nation1 Female Nation1 70 Yes
- 9. Female Nation1 Male Nation1 57 No
- 10. Male Nation3 Dont mind Dont mind 81 Yes

#### **Baseline Result:**

- 1.  $[[1, 3, 5], [7, 8, 9], [2, 10], [4, 6]] \rightarrow -6,784$
- 2.  $[[2, 10], [4, 6], [5, 9], [7, 8], [1, 3]] \rightarrow -7,25$
- 3.  $[[1, 5], [2, 10], [3, 9], [4, 6], [7, 8]] \rightarrow -8,625$
- 4.  $[[1, 3, 5, 7], [2, 10], [4, 6], [8, 9]] \rightarrow -9,111$
- 5.  $[[2, 6, 10], [3, 5, 9], [1, 7], [4, 8]] \rightarrow -12,232$
- 6.  $[[2, 6, 8, 10], [1, 3], [4, 7], [5, 9]] \rightarrow -12,302$
- 0. [[2, 0, 0, 10], [1, 3], [4, 7], [3, 3]] 7 -12,30.
- 7.  $[[1, 3, 7, 8], [2, 4, 6, 10], [5, 9]] \rightarrow -12,348$
- 8.  $[[2, 6, 7, 8], [1, 5], [3, 9], [4, 10]] \rightarrow -13,642$
- 9.  $[[1, 5, 7, 8], [2, 4, 6, 10], [3, 9]] \rightarrow -13,762$
- 10.  $[[2, 4, 6, 10], [1, 7], [3, 5], [8, 9]] \rightarrow -13,992$
- 11.  $[[1, 3, 5, 7], [2, 6, 8, 10], [4, 9]] \rightarrow -14,162$
- 12.  $[[1, 3, 4, 7], [2, 6, 8, 10], [5, 9]] \rightarrow -14,802$
- 13.  $[[2, 6, 7, 8, 10], [4, 5, 9], [1, 3]] \rightarrow -14,819$

#### **MAC Result:**

- 1.  $[[4, 6, 8], [2, 10], [1, 3, 5], [7, 9]] \rightarrow -4,824$
- 2.  $[[2, 10], [4, 6], [1, 3, 5], [7, 8, 9]] \rightarrow -5.284$
- 3.  $[[2, 10], [4, 6], [5, 7, 8, 9], [1, 3]] \rightarrow -6.063$
- 4.  $[[1, 5], [2, 10], [3, 9], [4, 6], [7, 8]] \rightarrow -7.75$
- 5.  $[[1, 3, 7, 8], [2, 4, 6, 10], [5, 9]] \rightarrow -8.348$
- 6.  $[[3, 5, 9], [4, 6, 8], [1, 7], [2, 10]] \rightarrow -8.391$
- 7.  $[[1, 5, 7, 8], [2, 4, 6, 10], [3, 9]] \rightarrow -9.637$
- 8.  $[[1, 3], [2, 10], [4, 6], [5, 7], [8, 9]] \rightarrow -9.875$
- 9.  $[[1, 5, 7], [2, 6, 10], [3, 9], [4, 8]] \rightarrow -10.302$
- 10.  $[[1, 3, 5, 7], [2, 6, 8, 10], [4, 9]] \rightarrow -10.912$
- 11.  $[[1, 3, 4, 7], [2, 6, 8, 10], [5, 9]] \rightarrow -11.302$
- 12.  $[[2, 4, 6, 10], [1, 7], [3, 5], [8, 9]] \rightarrow -11.742$
- 13.  $[[6, 7, 8, 10], [1, 5], [2, 4], [3, 9]] \rightarrow -12.342$

# **Next Steps**

- 1. Talking with Praksis to get feedback about the CHC Example Results
- 2. Can use cases be implemented with SPARQL? Yes
- 3. Slides for Master Seminar

# LCC MAC & Baseline results

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- 3.  $[[1, 5], [2, 10], [3, 9], [4, 6], [7, 8]] \rightarrow -8,125$
- 4.  $[[4, 6, 7, 8], [1, 5], [2, 10], [3, 9]] \rightarrow -8,475$
- 5.  $[[1, 3, 7, 8], [2, 4, 6, 10], [5, 9]] \rightarrow -9,472$

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