How to Build a Stream Reasoning Application
D. Dell'Aglio, E. Della Valle, T. Le-Pham, A. Mileo, and R. Tommasini
http://streamreasoning.org/events/streamapp2017

Conclusions
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### Stream reasoning: where are we?

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>volume</td>
<td>:-(</td>
</tr>
<tr>
<td>velocity</td>
<td>:-)</td>
</tr>
<tr>
<td>variety</td>
<td>:-</td>
</tr>
<tr>
<td>incompleteness</td>
<td>:-(</td>
</tr>
<tr>
<td>noise</td>
<td>:-(</td>
</tr>
<tr>
<td>reactive answers</td>
<td>:-</td>
</tr>
<tr>
<td>fine-grained information access</td>
<td>:-)</td>
</tr>
<tr>
<td>complex domain models</td>
<td>:-</td>
</tr>
<tr>
<td>high-level languages</td>
<td>:-</td>
</tr>
</tbody>
</table>
Conclusions

Application

New abstractions to capture user needs

Stream Processing

Graph-level entailment

Window merge

Event Processing

Window-level entailment

Window operator

Stream-level entailment

Streams

very well

some initial studies

still very open
[P05] Riccardo Tommasini and Emanuele Della Valle: *Yasper 1.0: Towards an RSP-QL Engine*

[P06] Qiong Li et al.: *An Adaptive Framework for RDF Stream Reasoning*


[D48] Andrea Mauri et al.: *Stressless RSP Benchmarking With RSPLab*
More on SR at ISWC 2017 – Papers

Doctoral consortium

- Shima Zahmatkesh: *Retrieval of the most relevant facts from data streams joined with slowly evolving dataset published on the Web of Data*
- Qian Liu: *ProvDS: Uncertain Provenance Management over Incomplete Linked Data Streams*

Main conference

- Xiangnan Ren and Olivier Curé: *Strider: A Hybrid Adaptive Distributed RDF Stream Processing Engine*
- Hamid R. Bazoobandi et al.: *Expressive Stream Reasoning with Laser*
- Riccardo Tommasini et al.: *RSPLab, RDF Stream Processing Benchmarking made easy*
More on SR at ISWC 2017 – today

Web Stream Reasoning workshop (from 14:00)

- Qianru Zhou et al.: *Lost Silence: An Emergency Response Early Detection Service through Continuous Processing of Telecommunication Data Streams*
- Veronika Thost: *News on Temporal Conjunctive Queries*
- Riccardo Tommasini and Emanuele Della Valle: *Challenges & Opportunities of RSP-QL Implementations*
- Philipp Zehnder and Dominik Riemer: *StreamConnect: Ingesting Historic and Real-Time Data into Unified Streaming Architectures*
- Thomas Eiter et al.: *Detecting Mobility Patterns using Spatial Query Answering over Streams*
- Jean-Paul Calbimonte: *Linked Data Notifications for RDF Streams*
Mayor’s Reception @ Vienna City Hall

- When: At 19:00 (up to 22:30)
- Where: Vienna City Hall, Lichtenfelsgasse 2, 1010 Vienna
  - U2 (direction Karlsplatz), stop at Rathaus
  - Take the exit Friedrich-Schmidt-Platz
  - Arrived!
- Buffet dinner
- Some remarks:
  - Badge is required to enter
  - Laptop and backpack should be left in the cloakroom
  - Complementary public transport tickets are available at the registration desk
- More at: https://iswc2017.semanticweb.org/program/social-events/
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